

FIG. 1

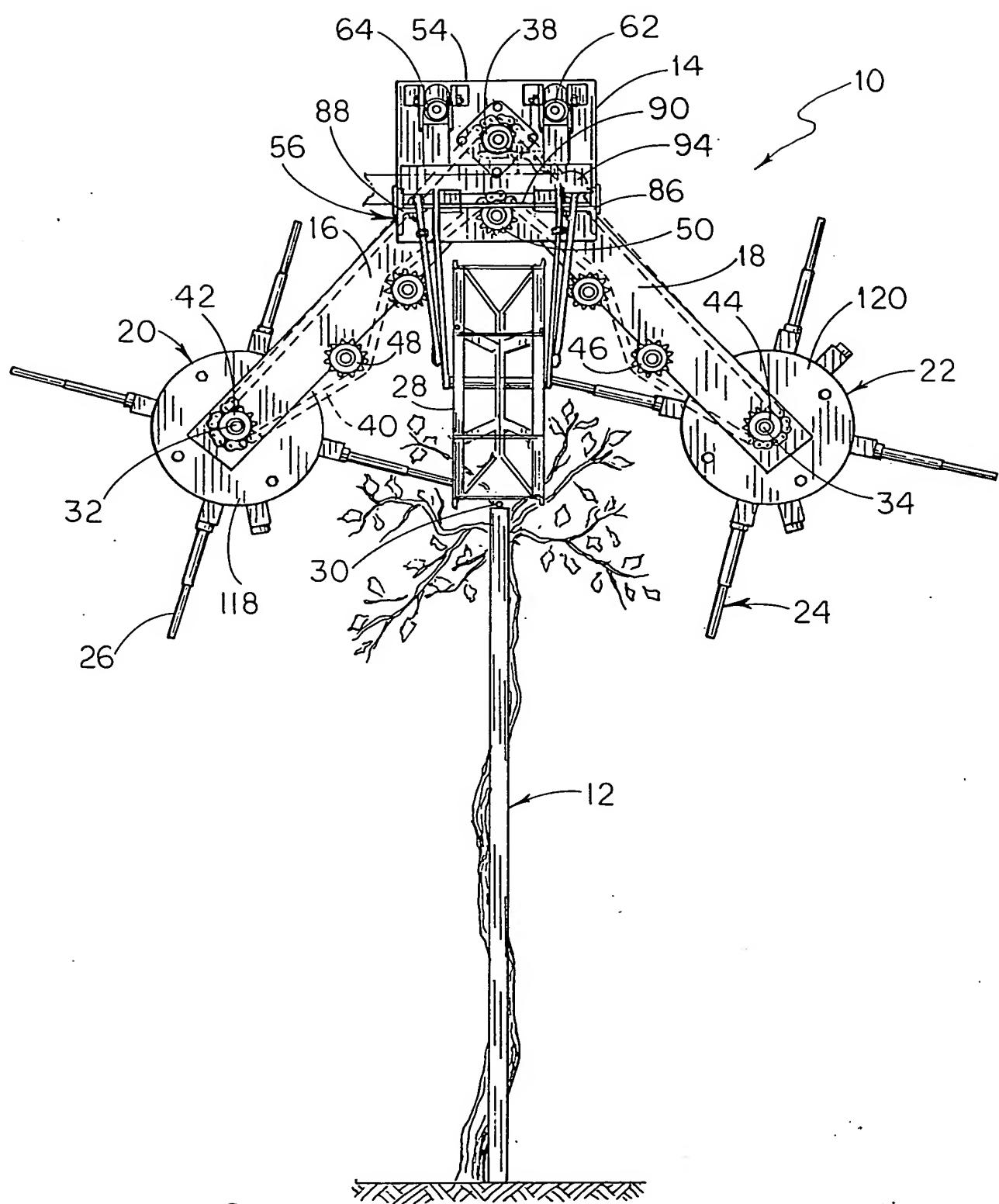
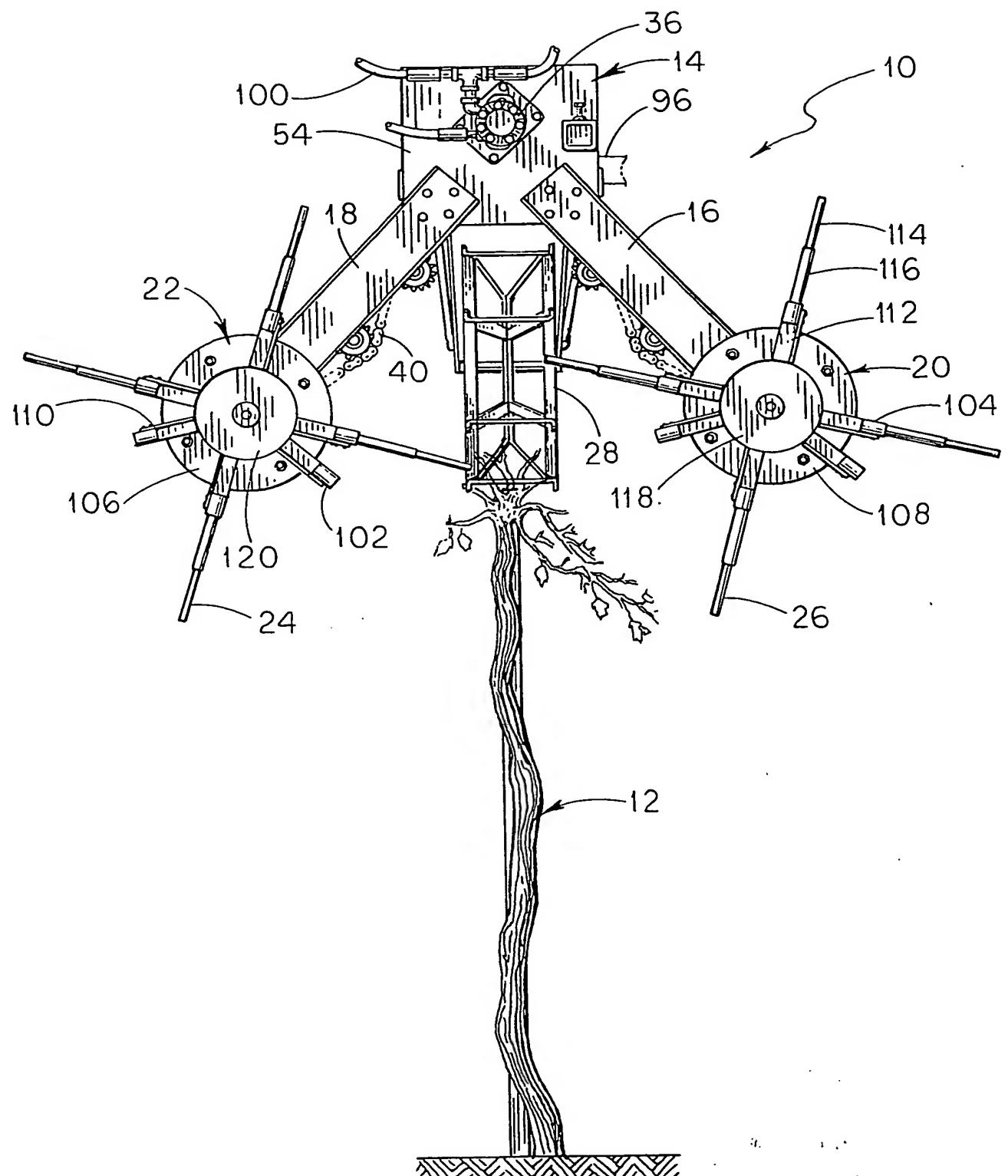


FIG. 2



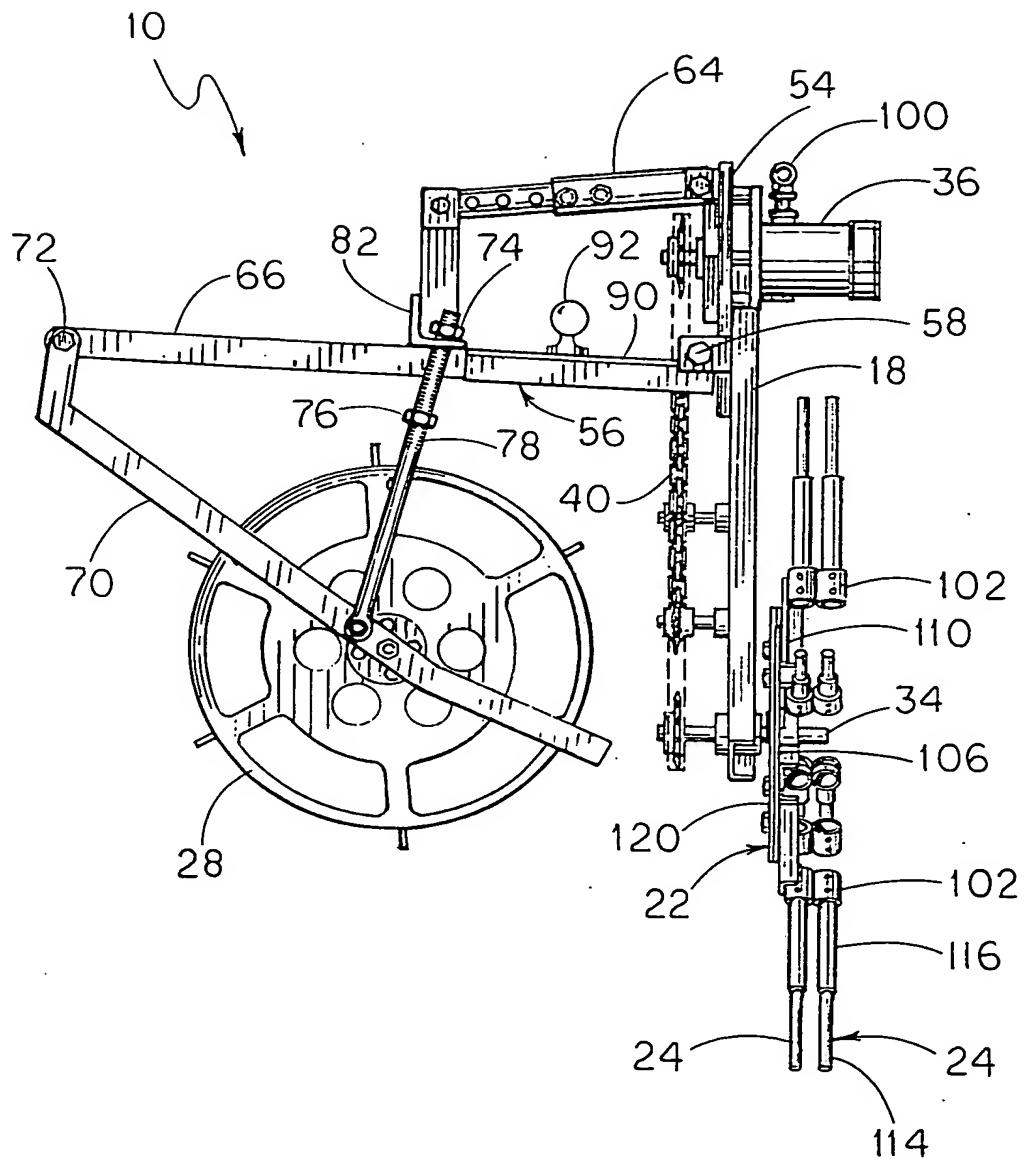


FIG. 4

20051550 - 47581700

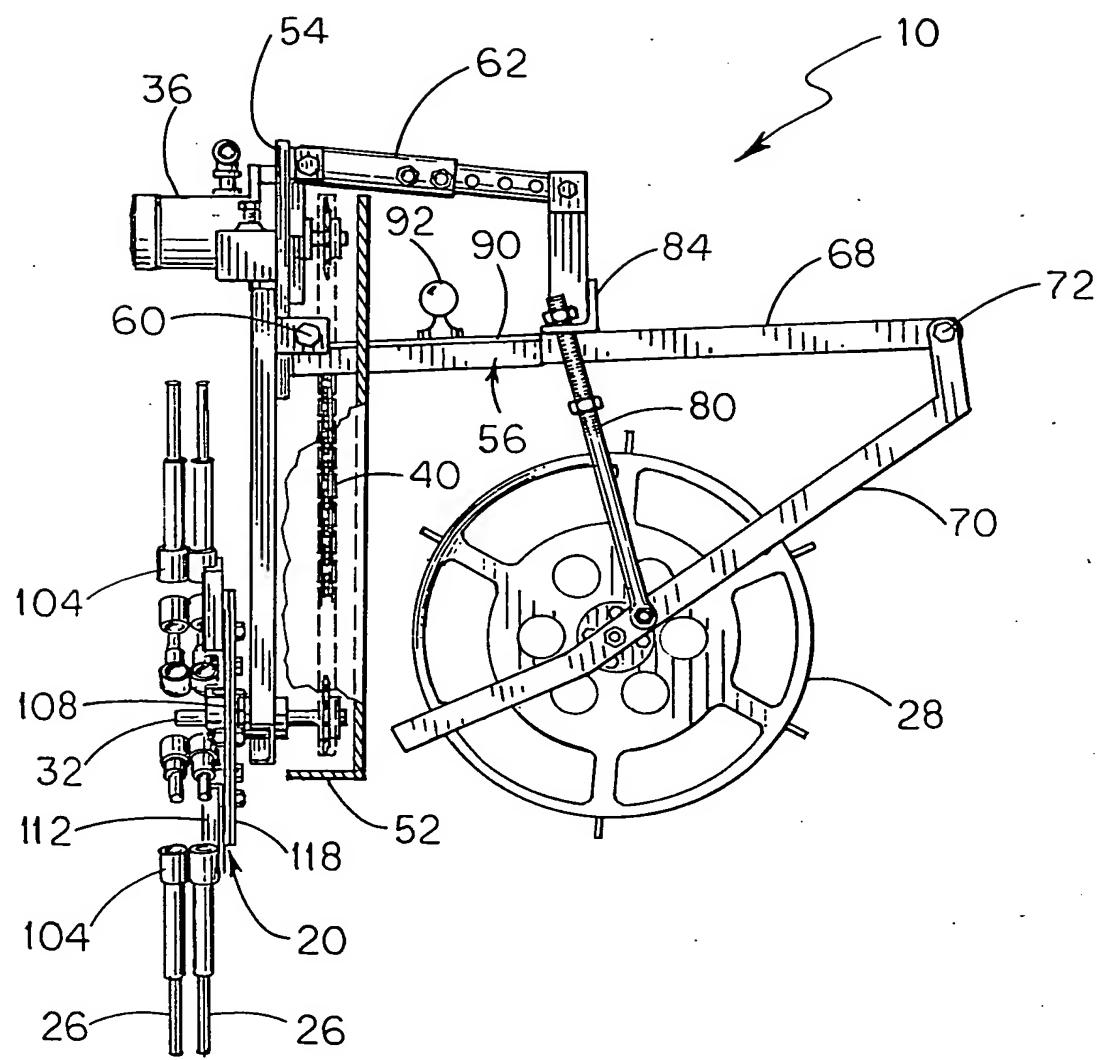


FIG. 5

FIG. 6

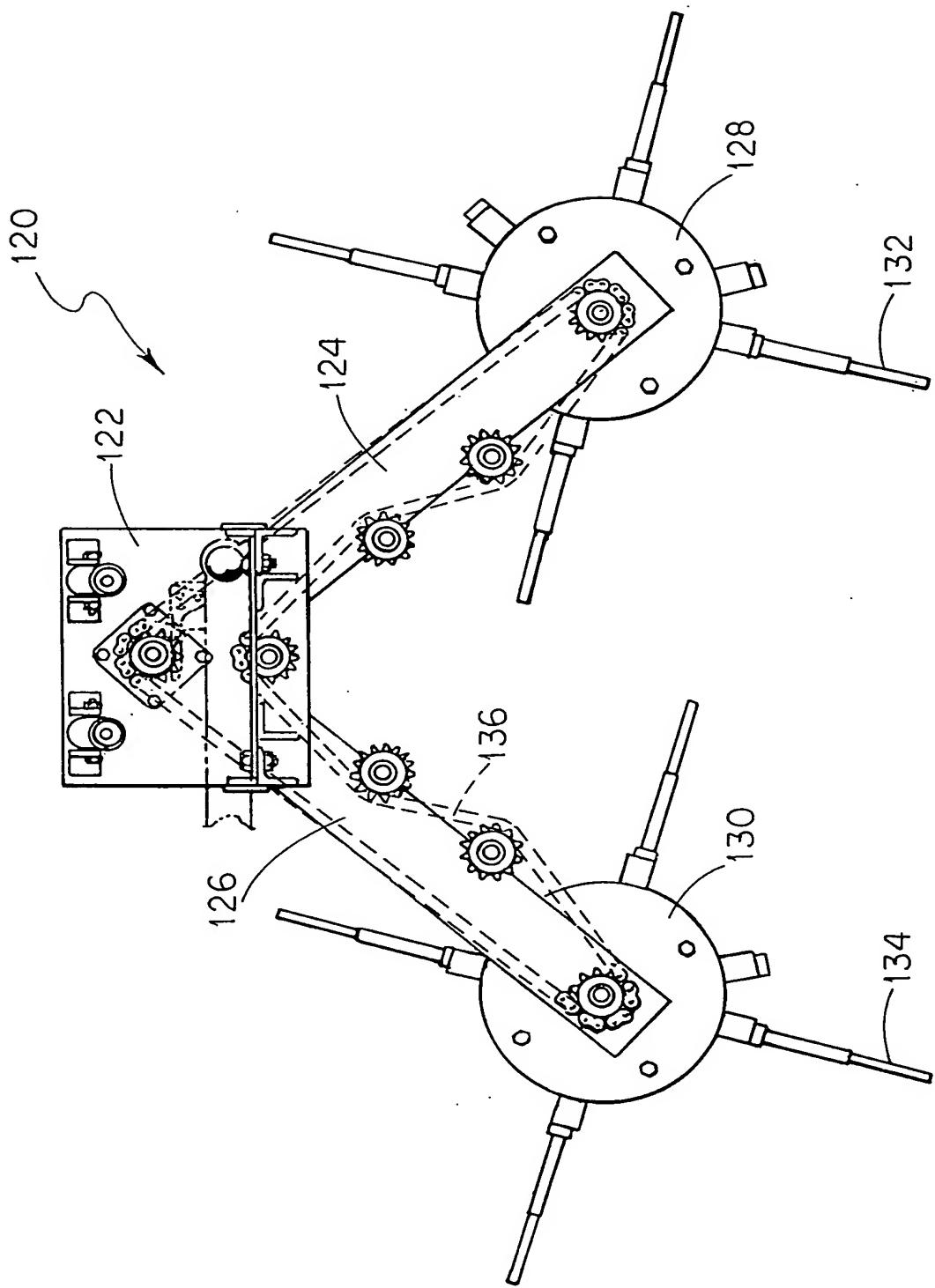


FIG. 7

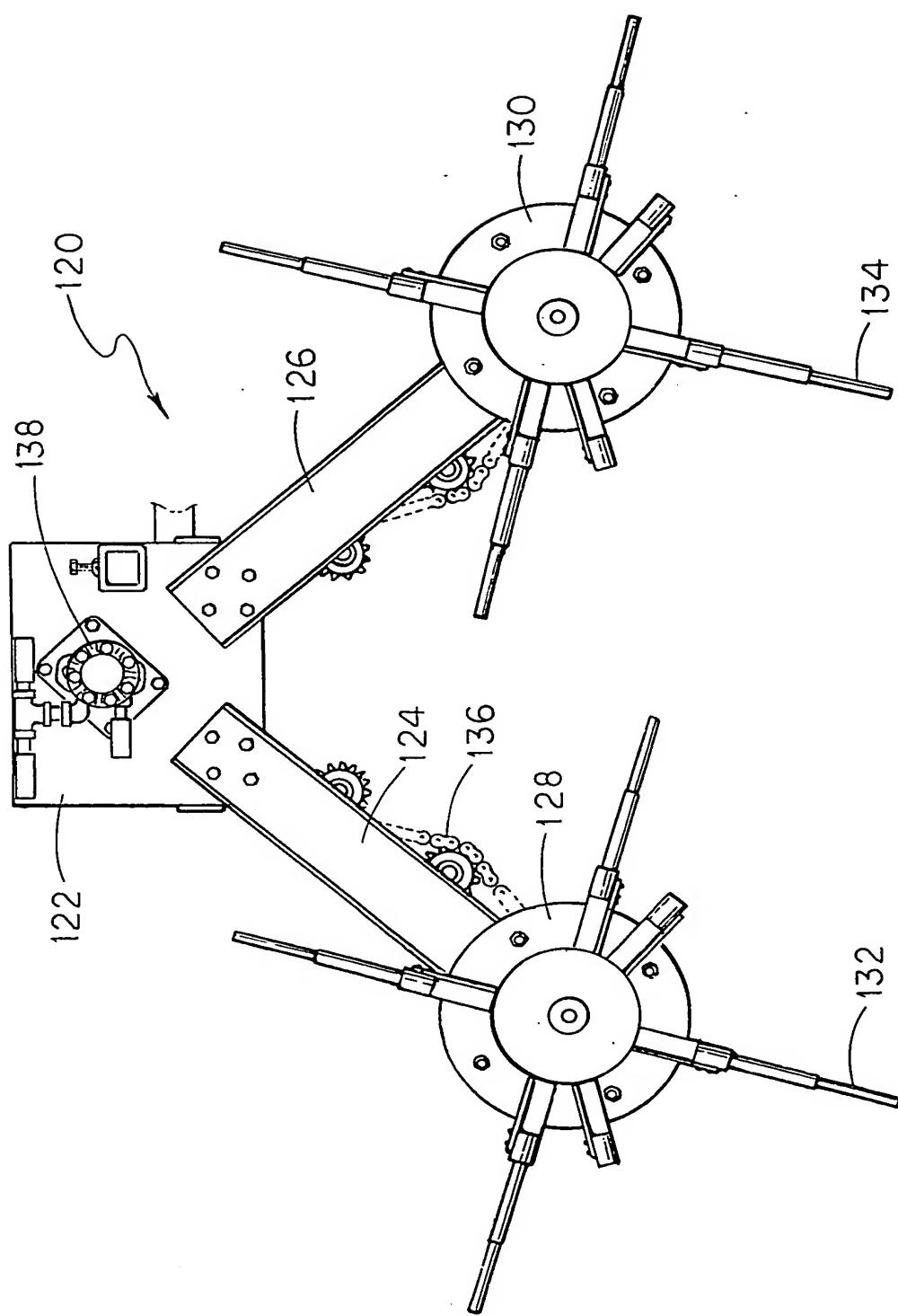
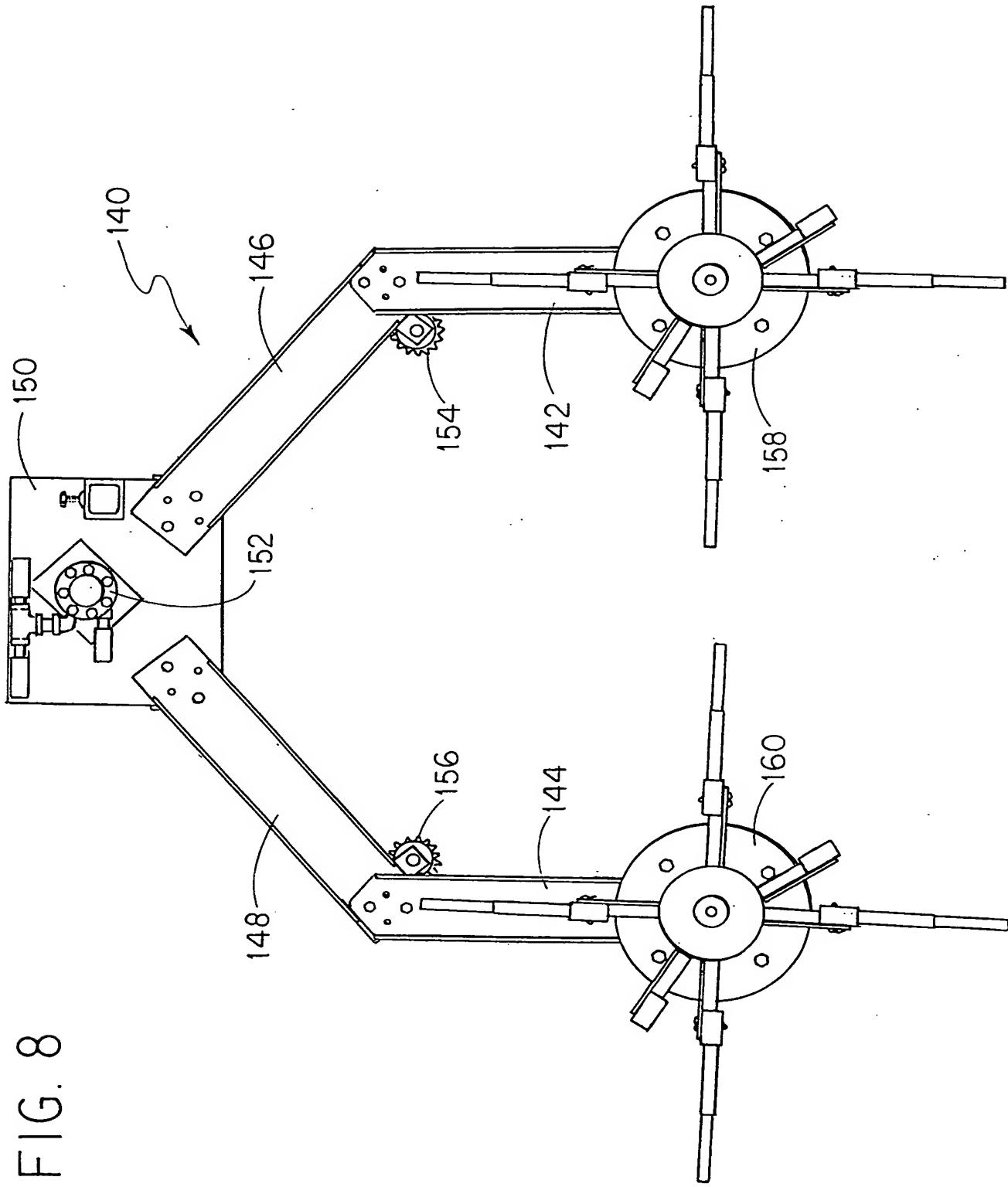


FIG. 8



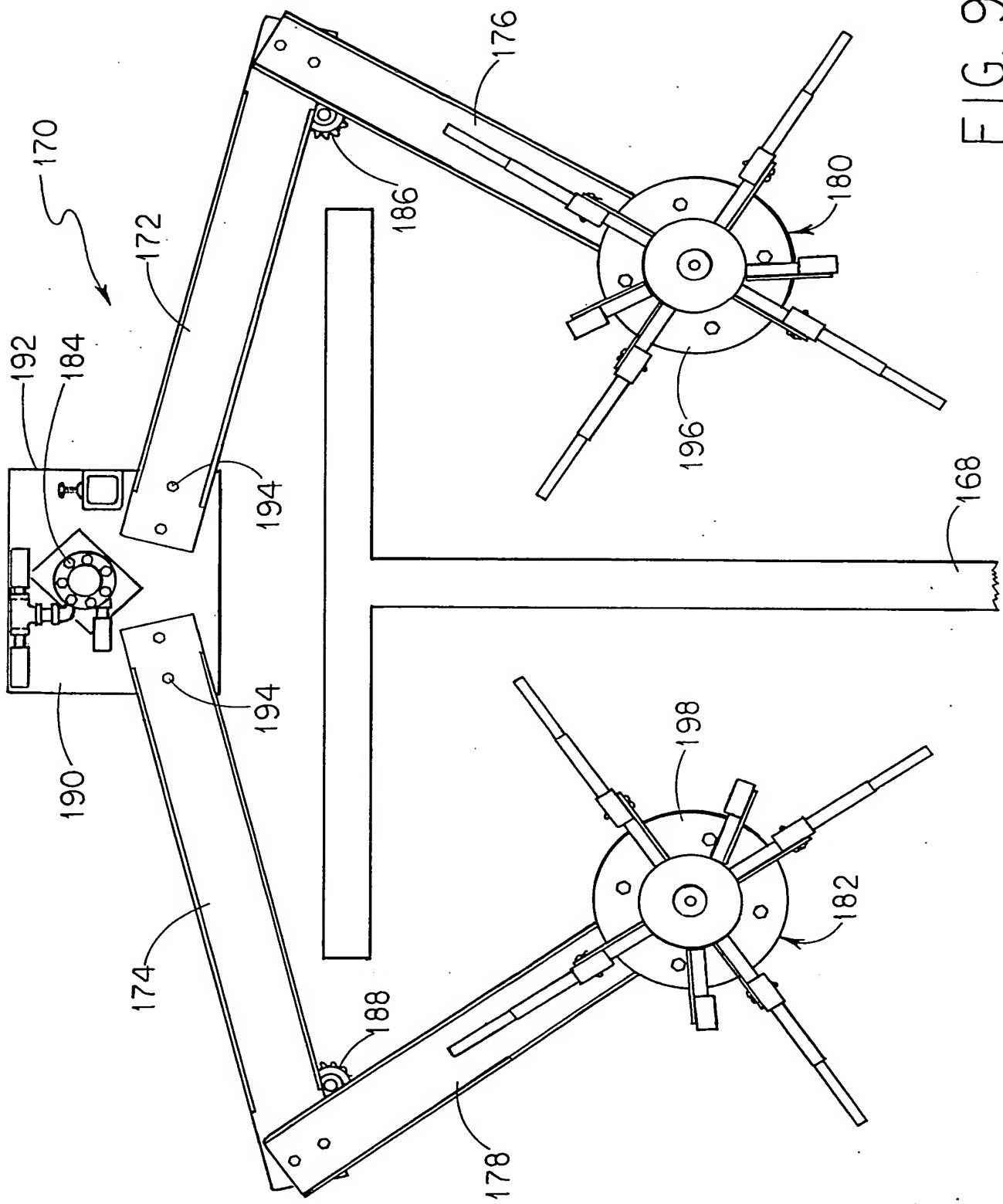


FIG. 9

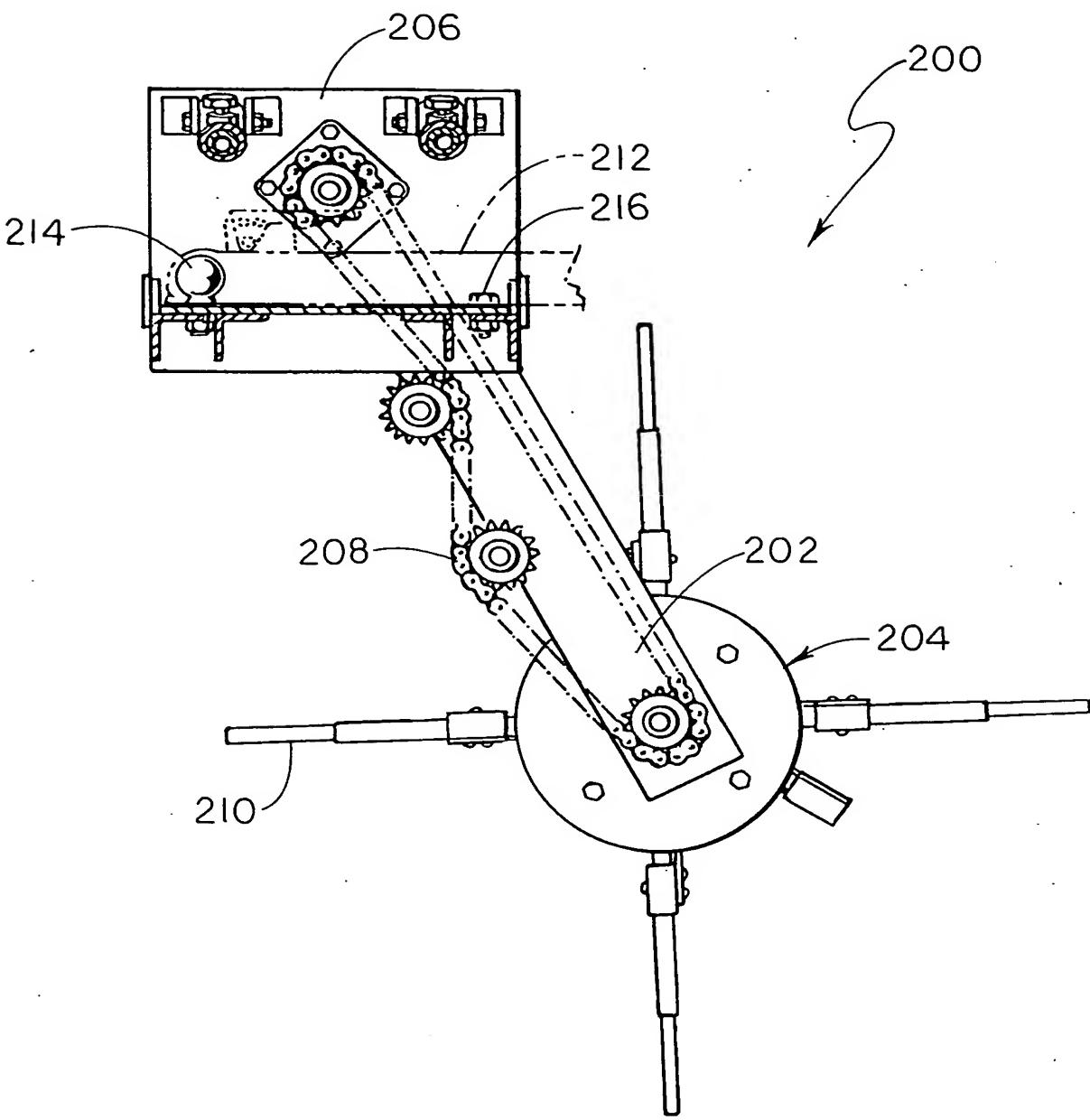


FIG. 10

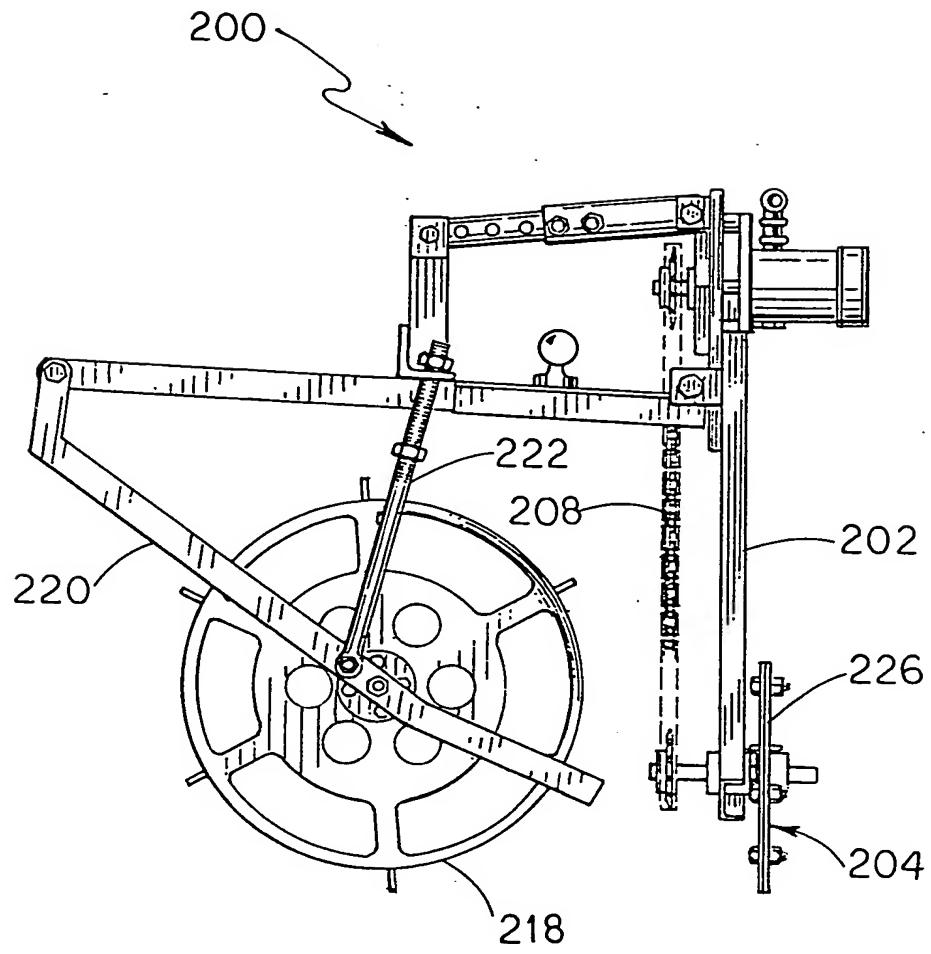


FIG. 11

4 904 1334 054202

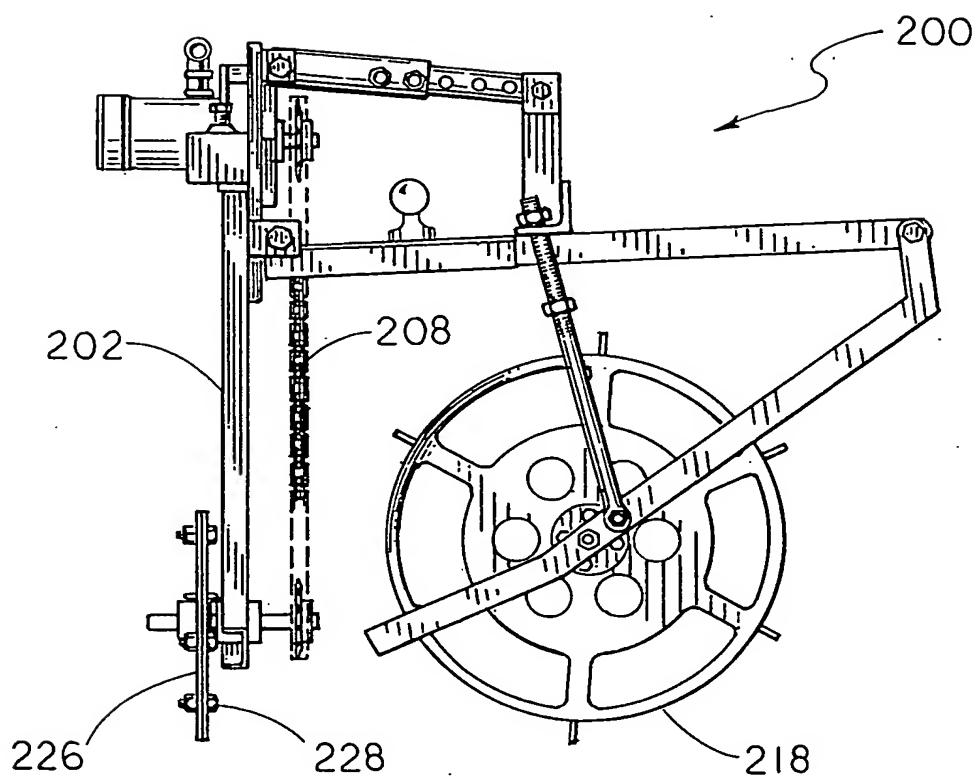


FIG. 12

FIG. 14

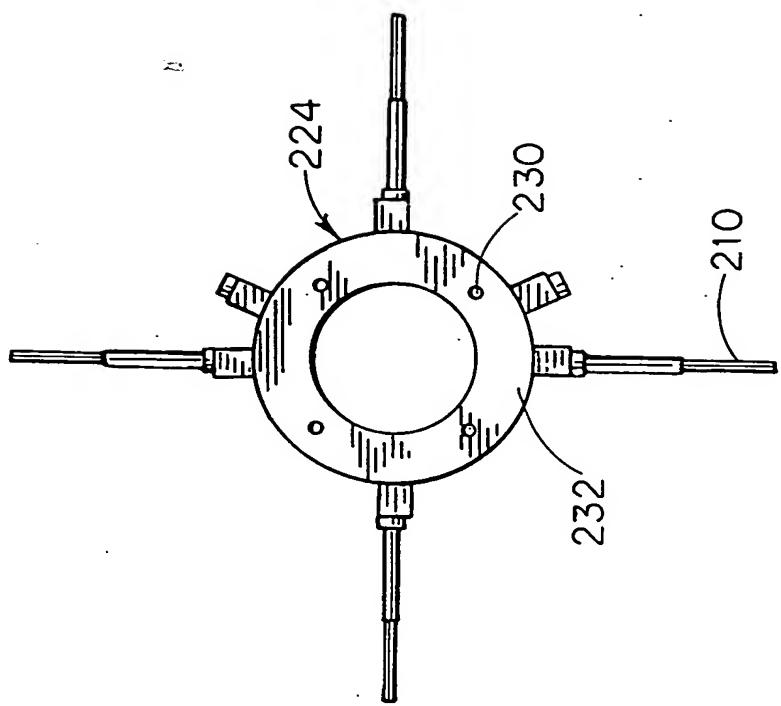


FIG. 13

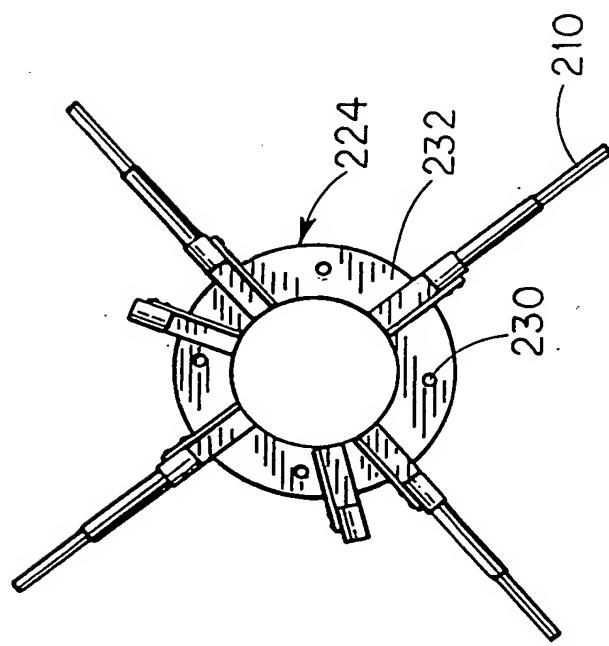


FIG. 15

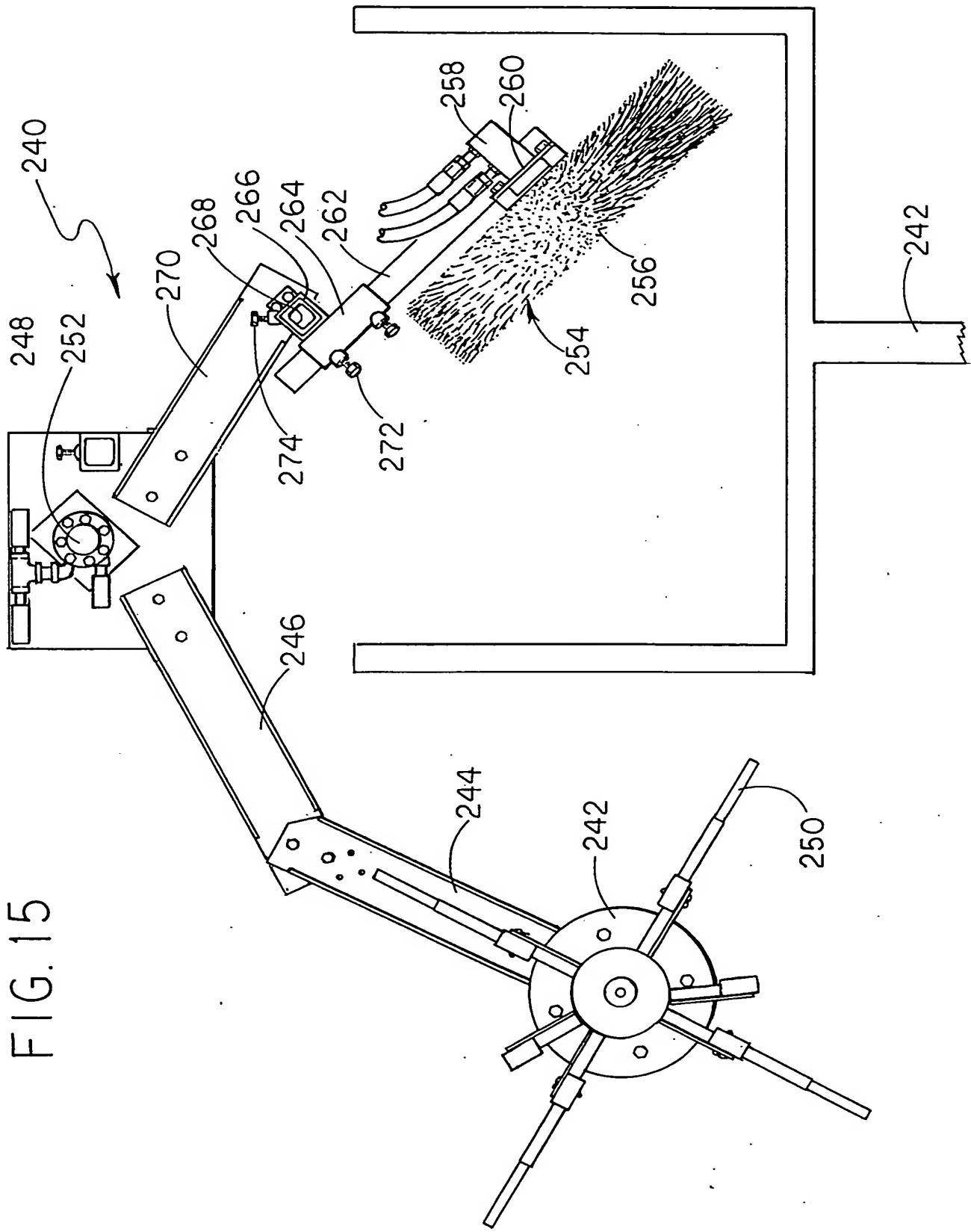
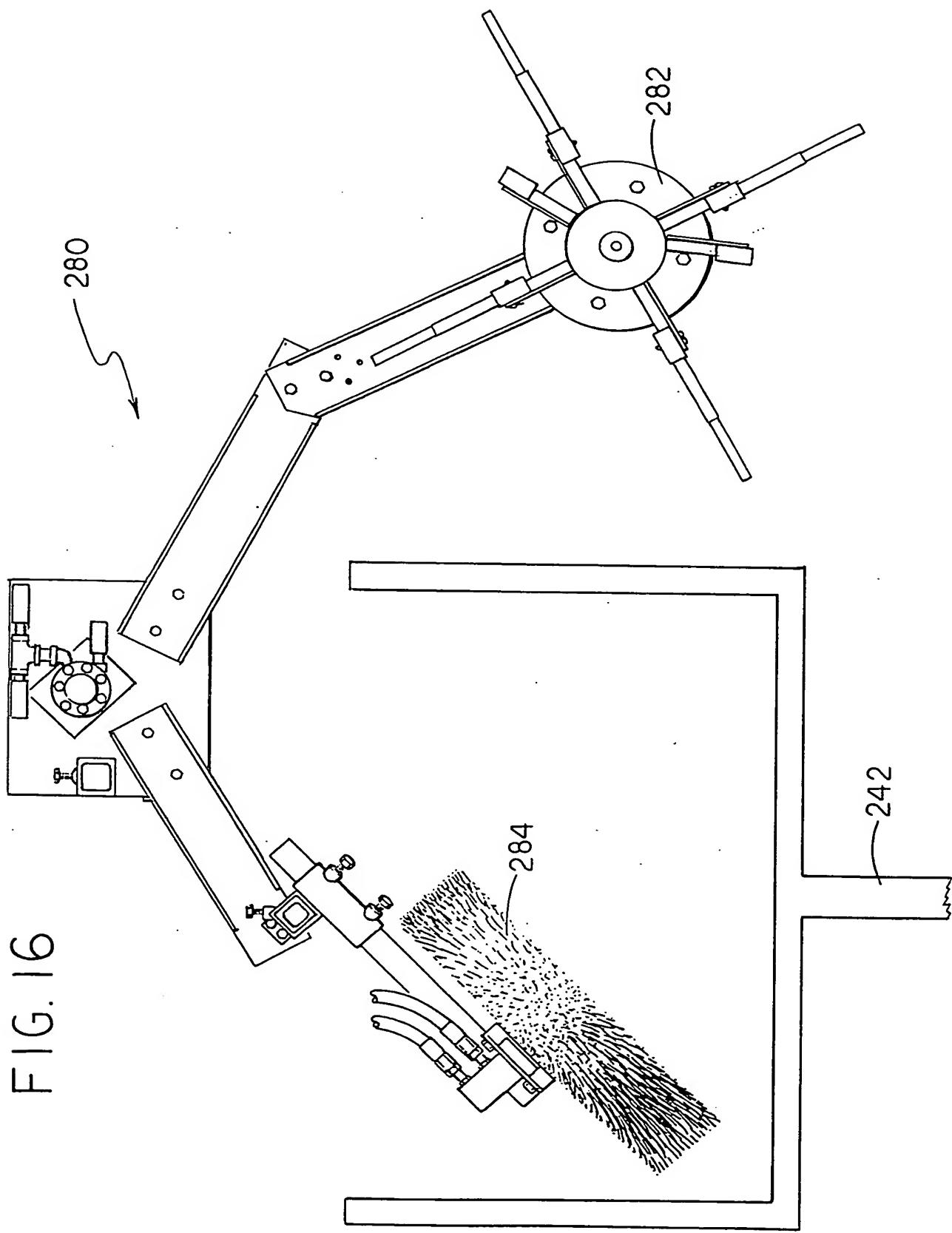


FIG. 16



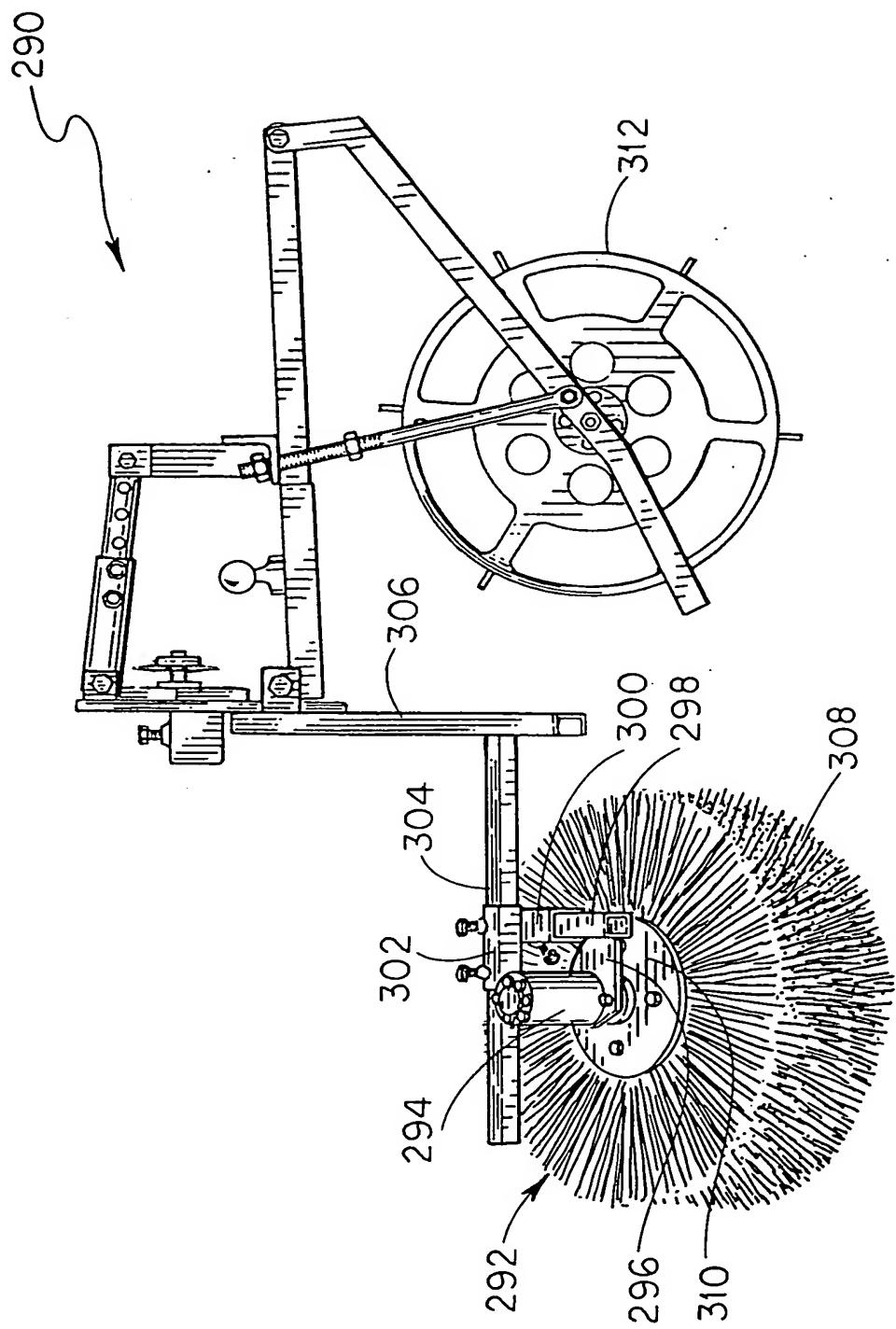


FIG. 17

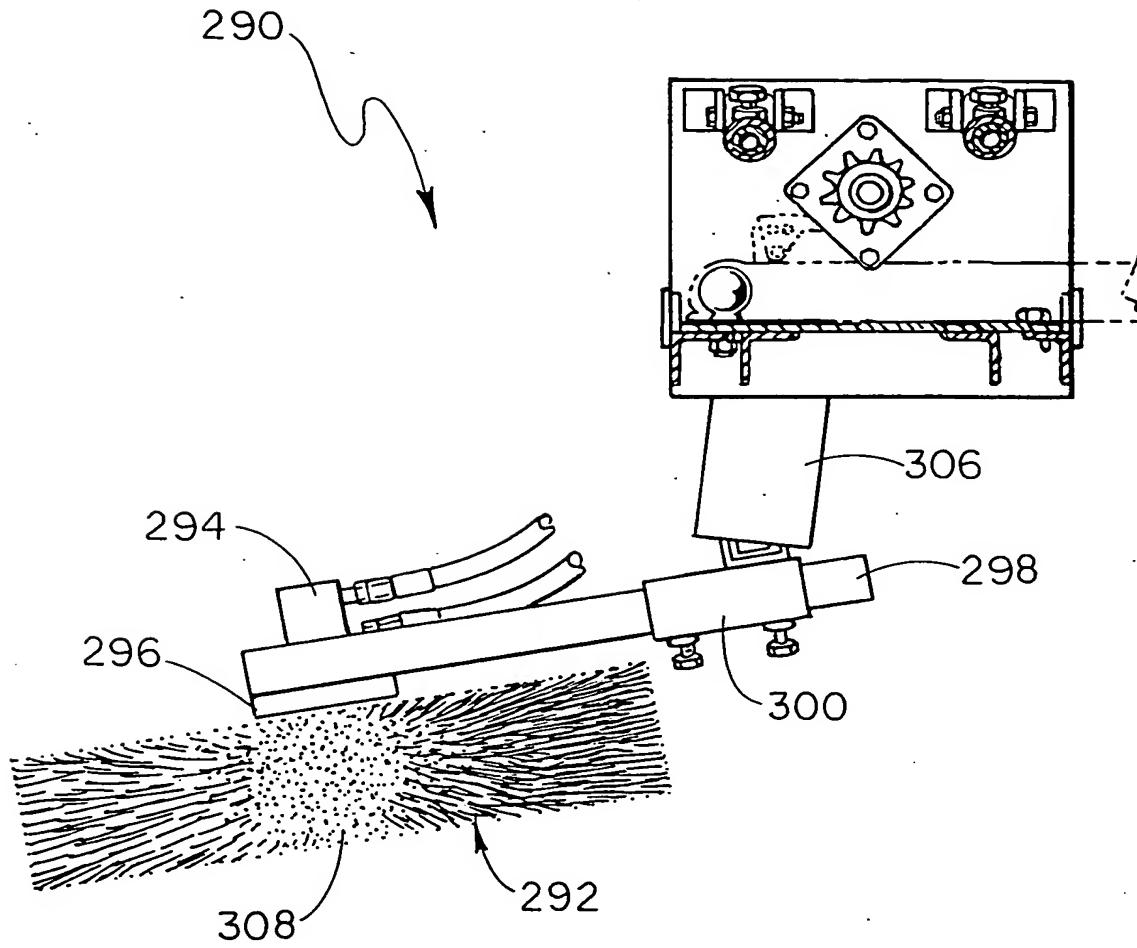
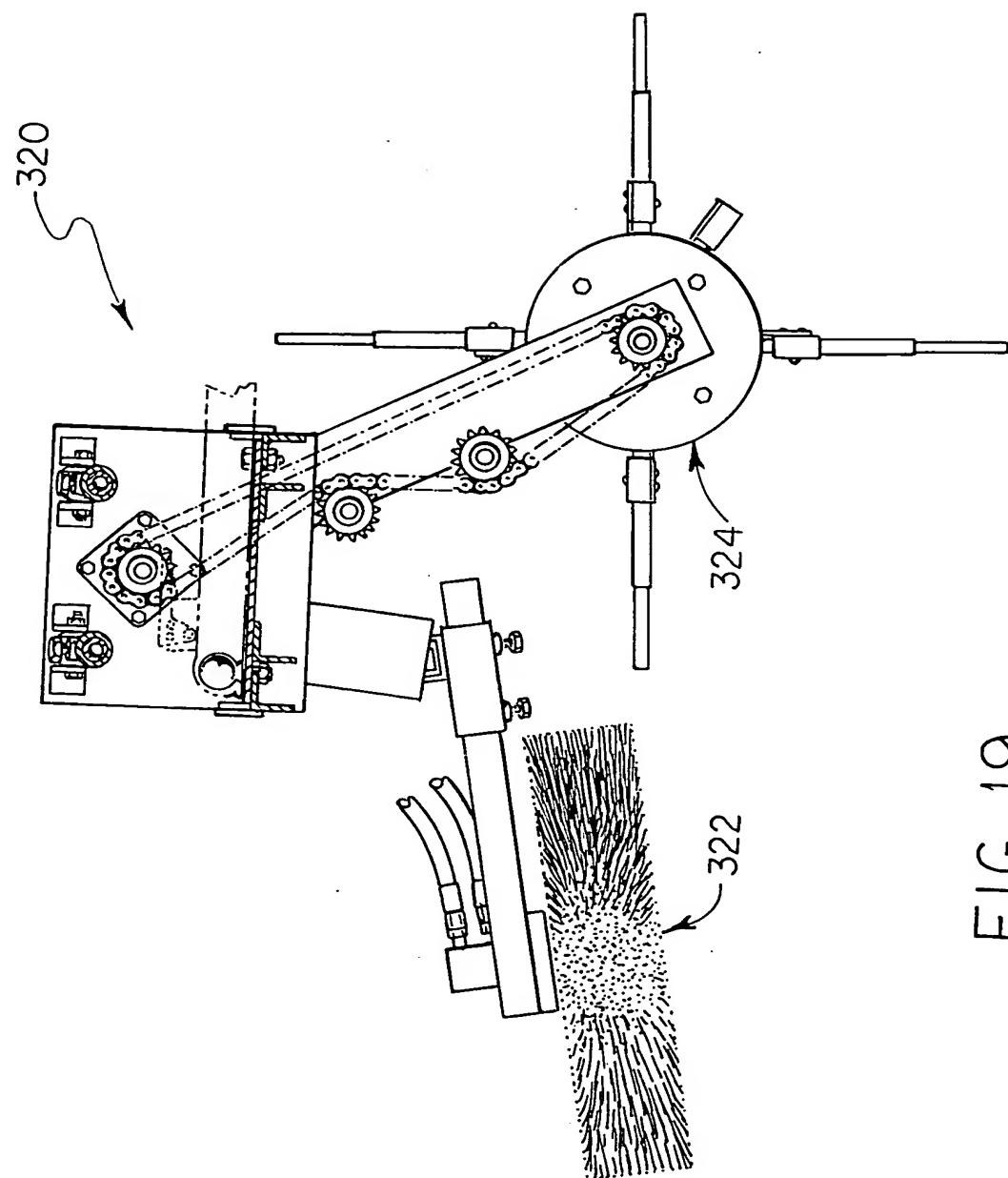


FIG. 18

FIG. 19



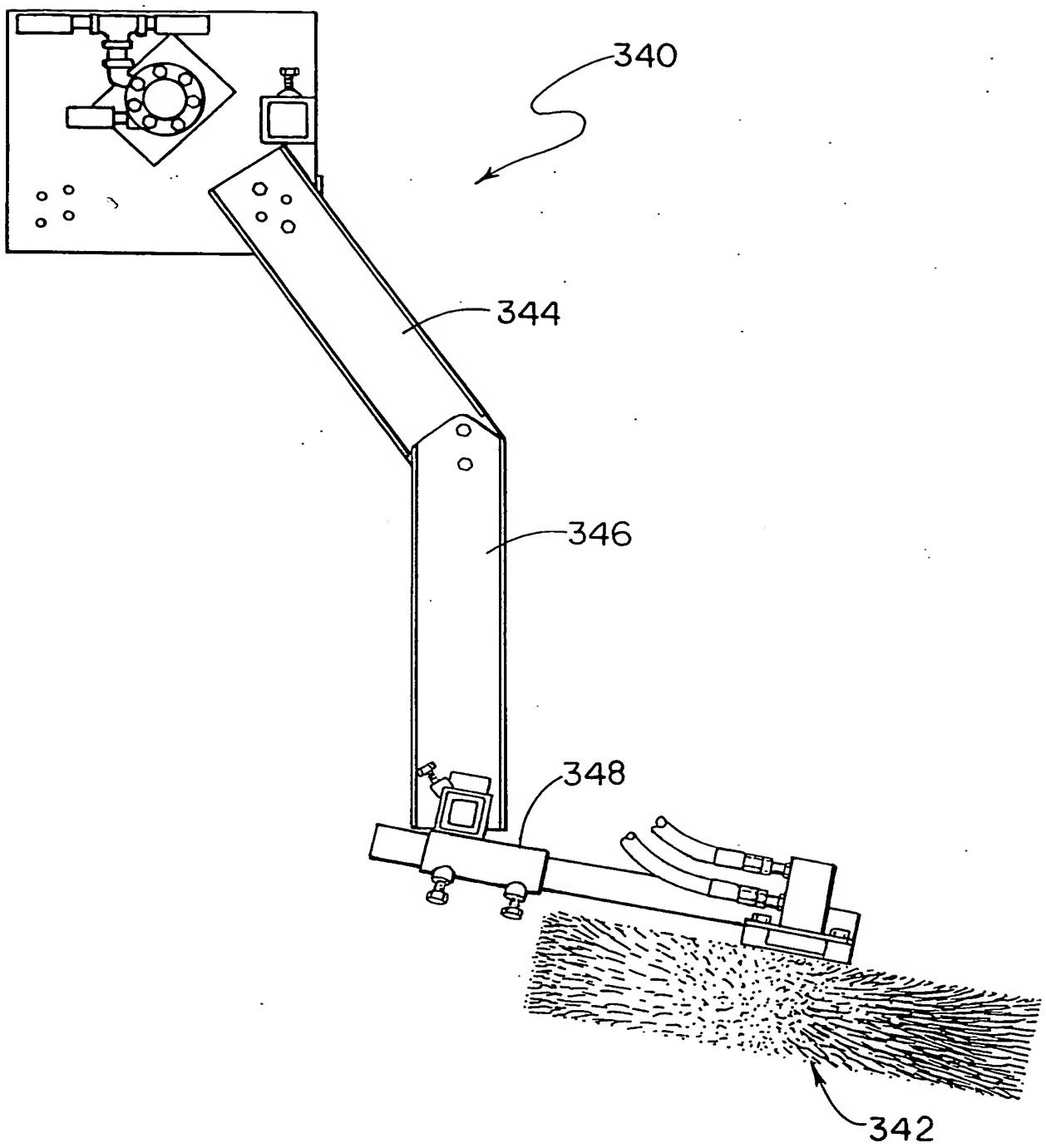


FIG. 20

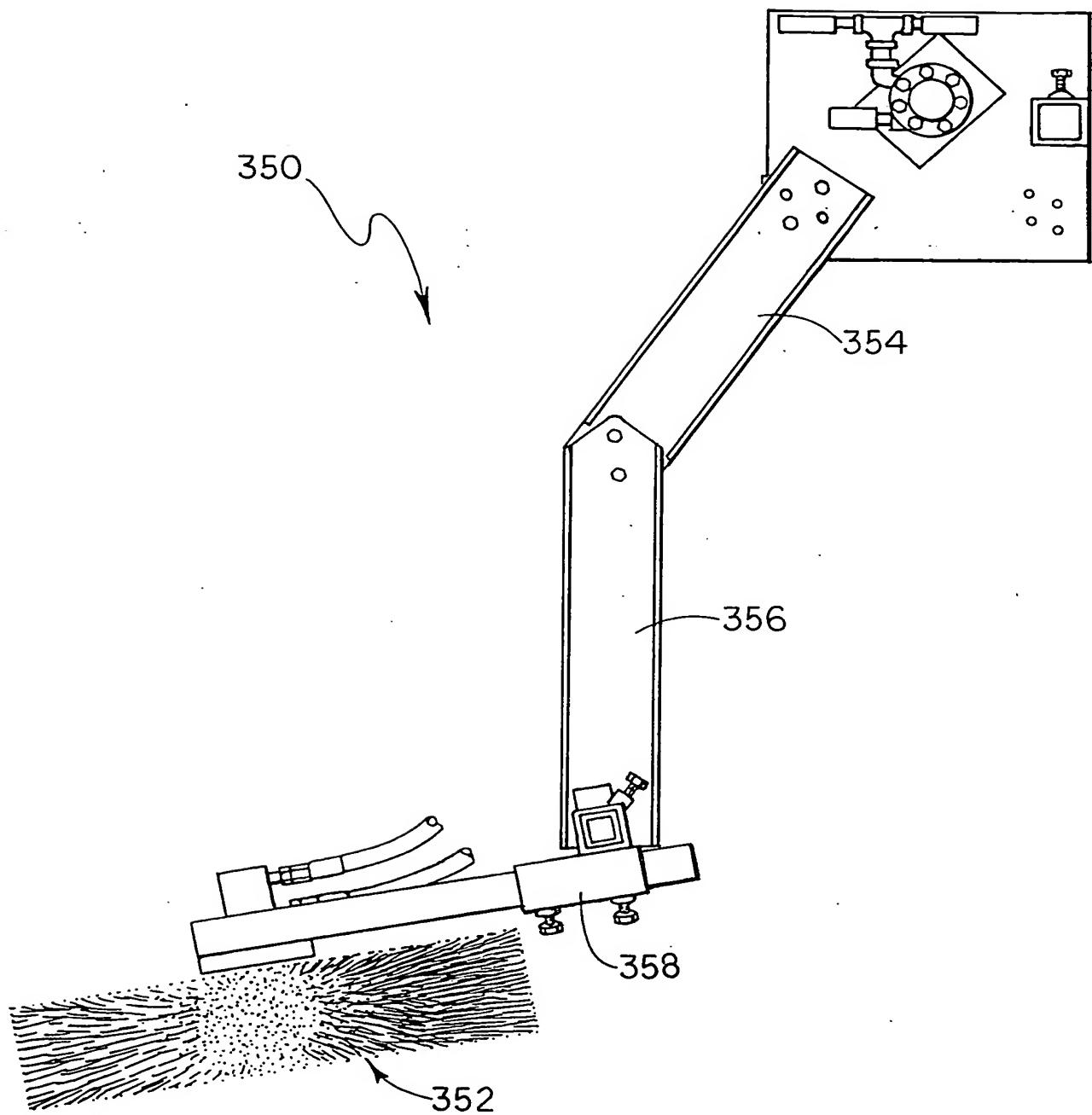


FIG. 21

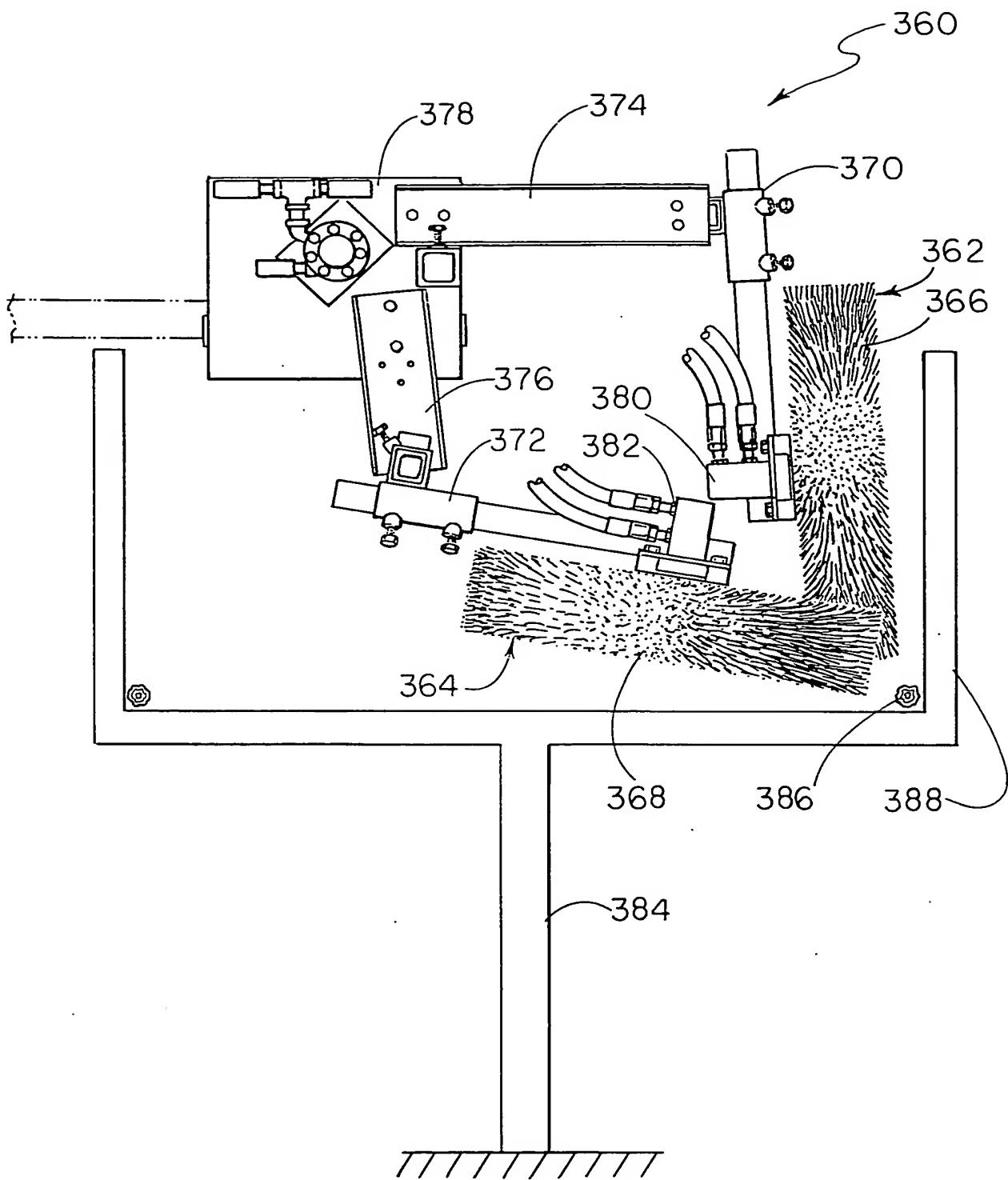


FIG. 22

2025 RELEASE UNDER E.O. 14176

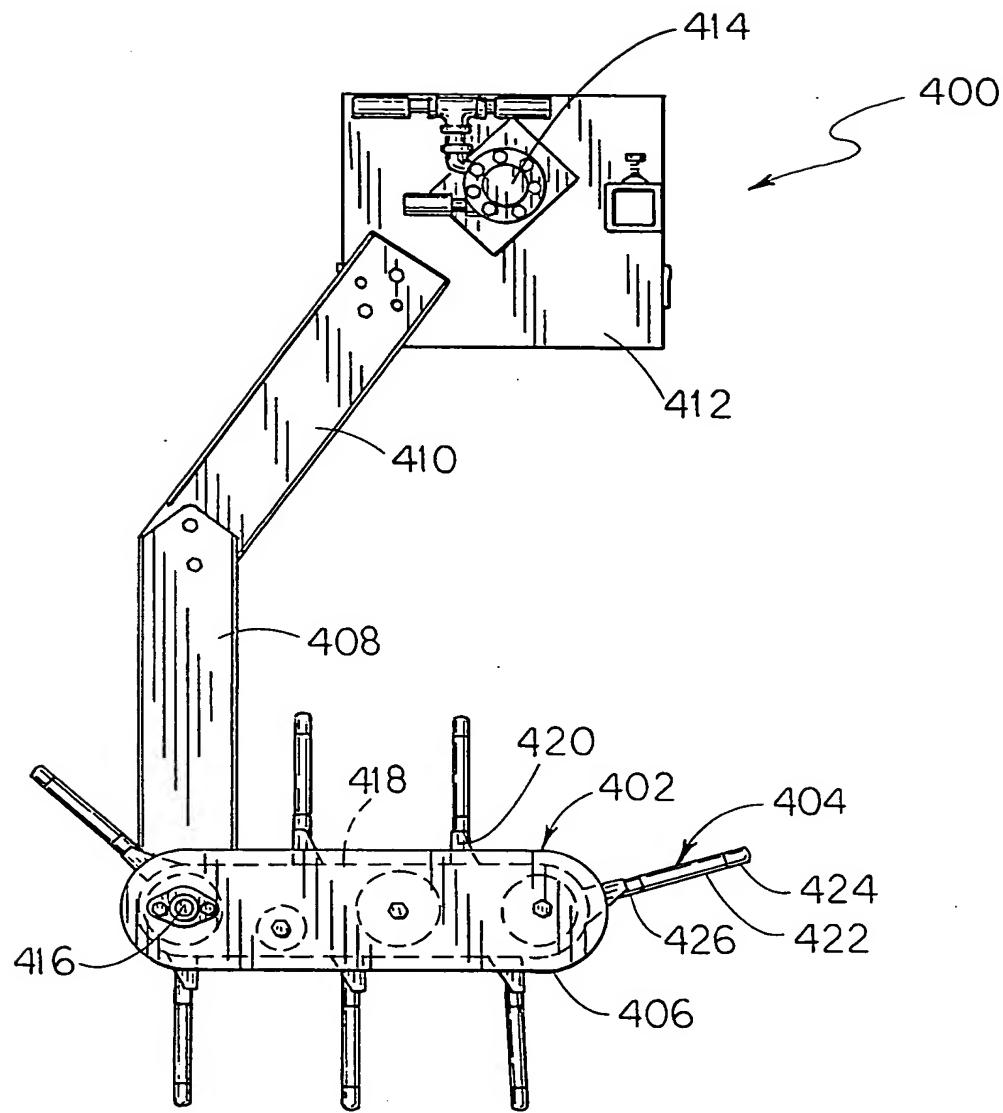


FIG. 23

2025 RELEASE UNDER E.O. 14176

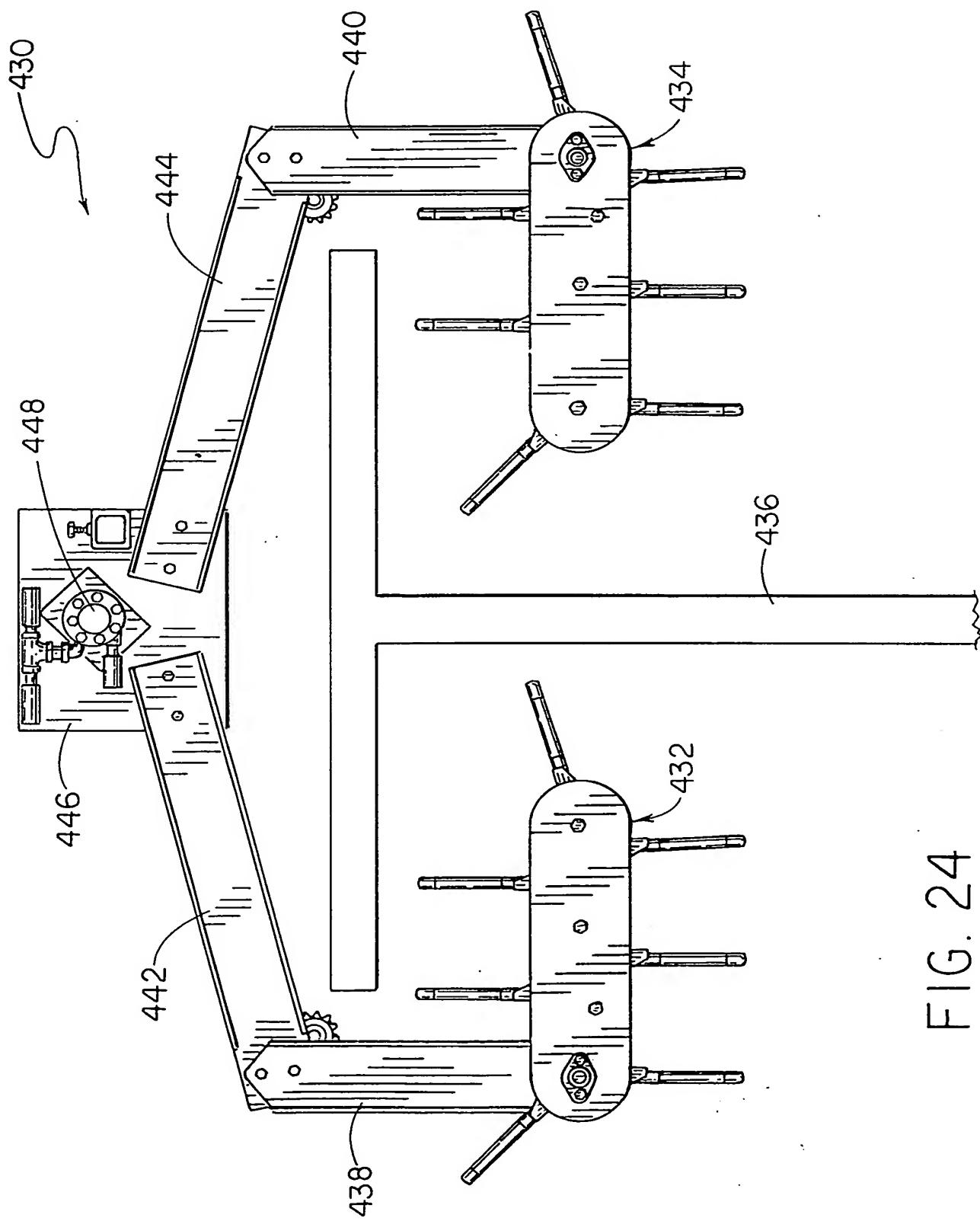


FIG. 24

FIGURE FIFTY-FIVE

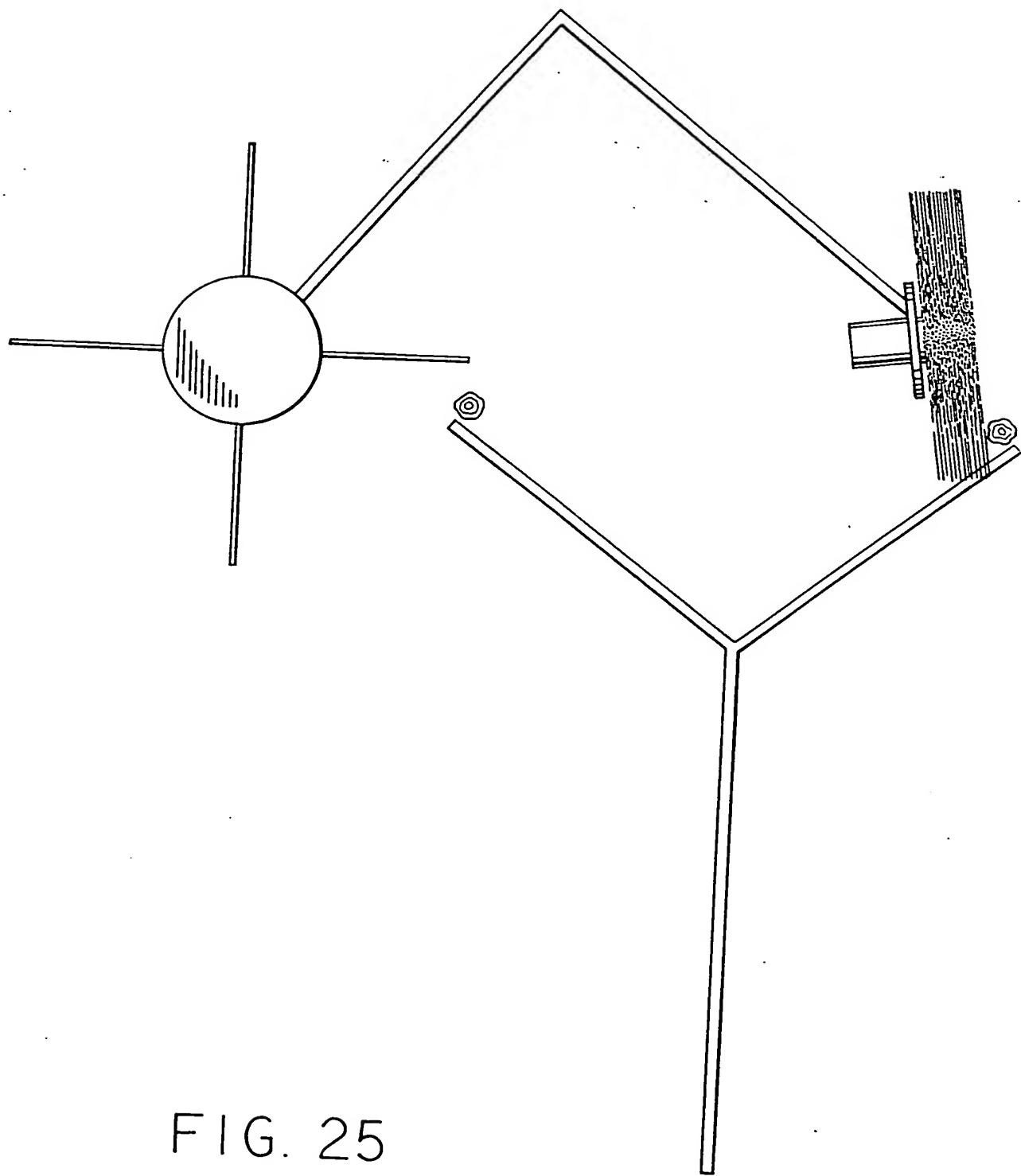


FIG. 25

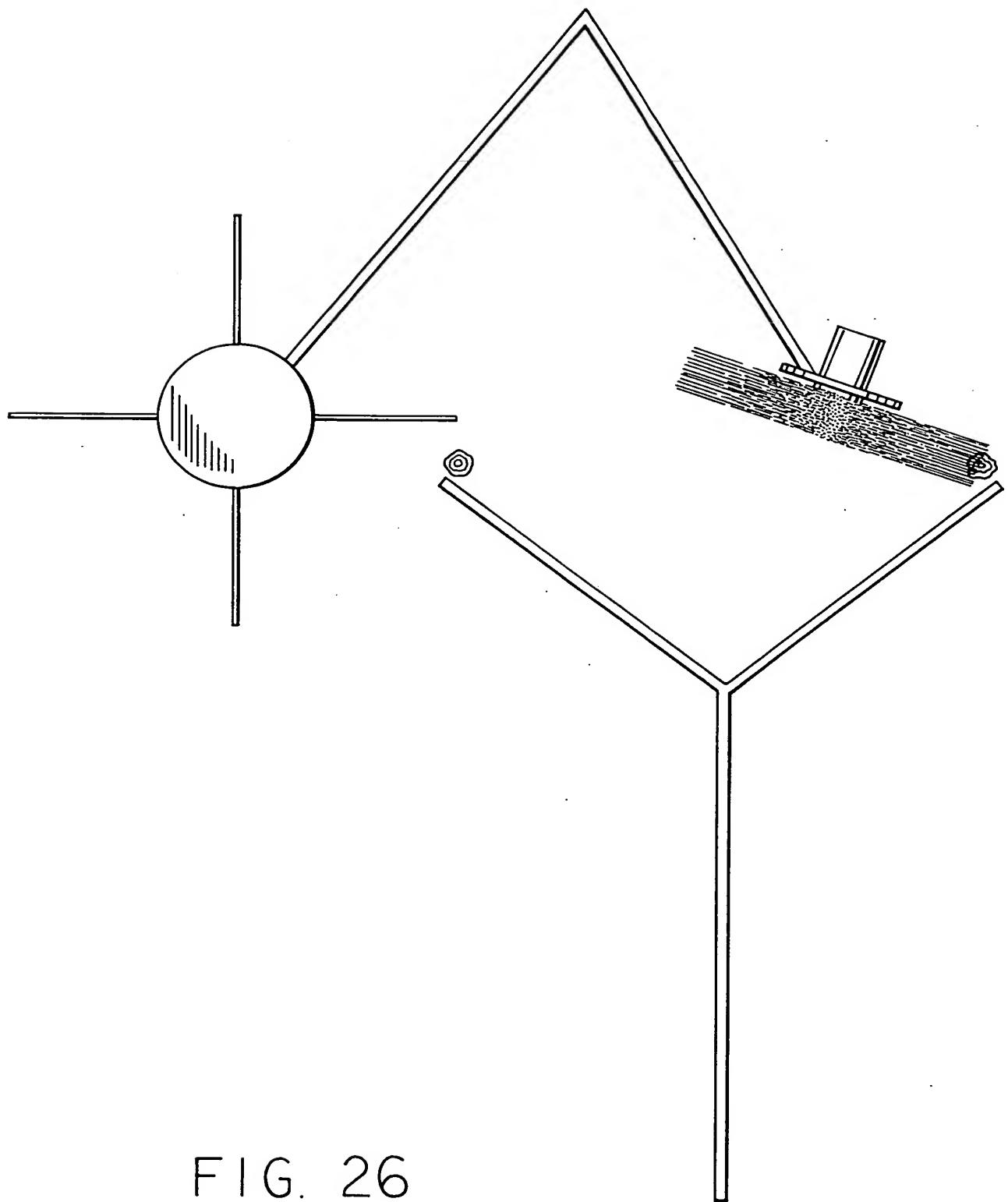


FIG. 26

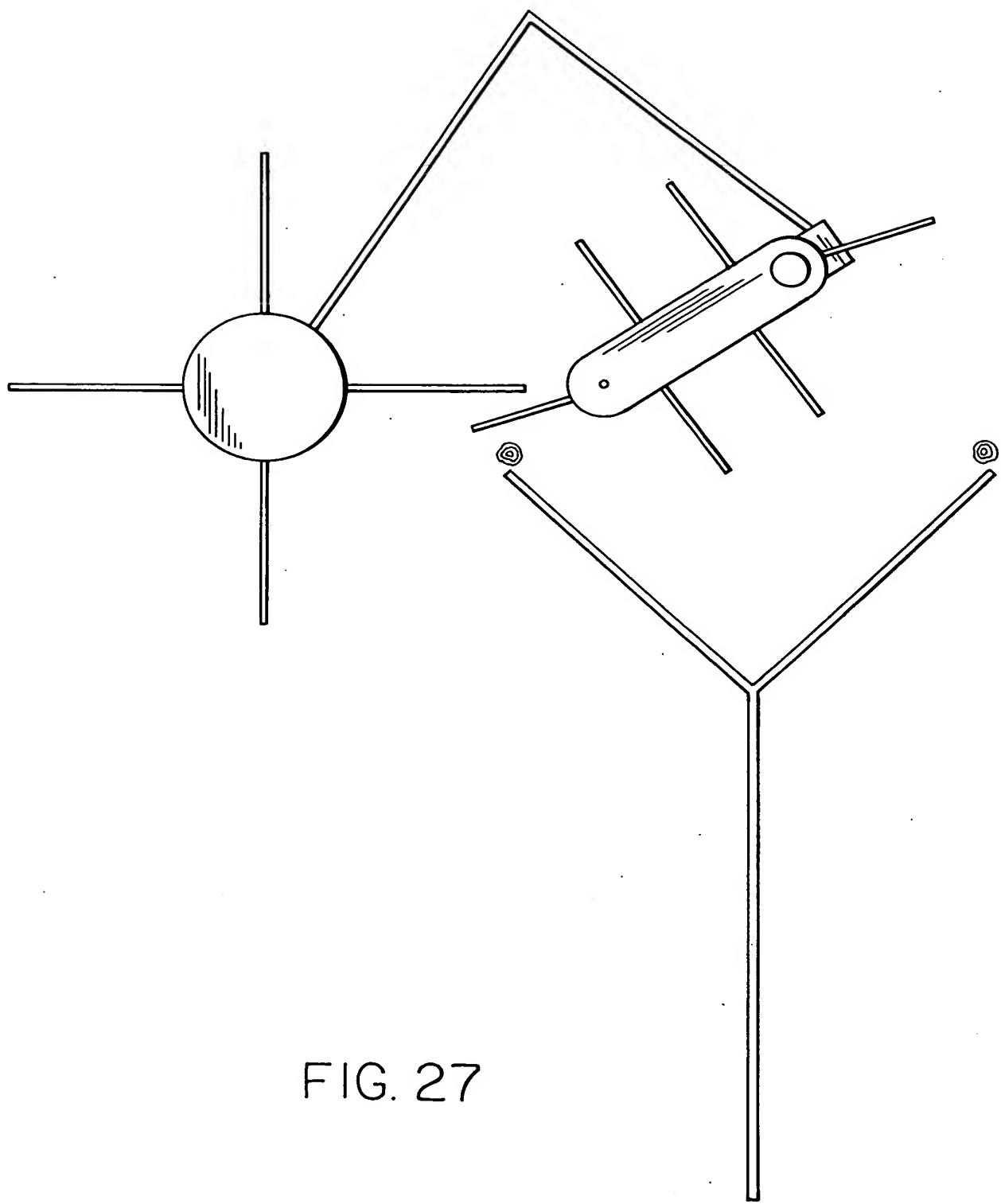


FIG. 27

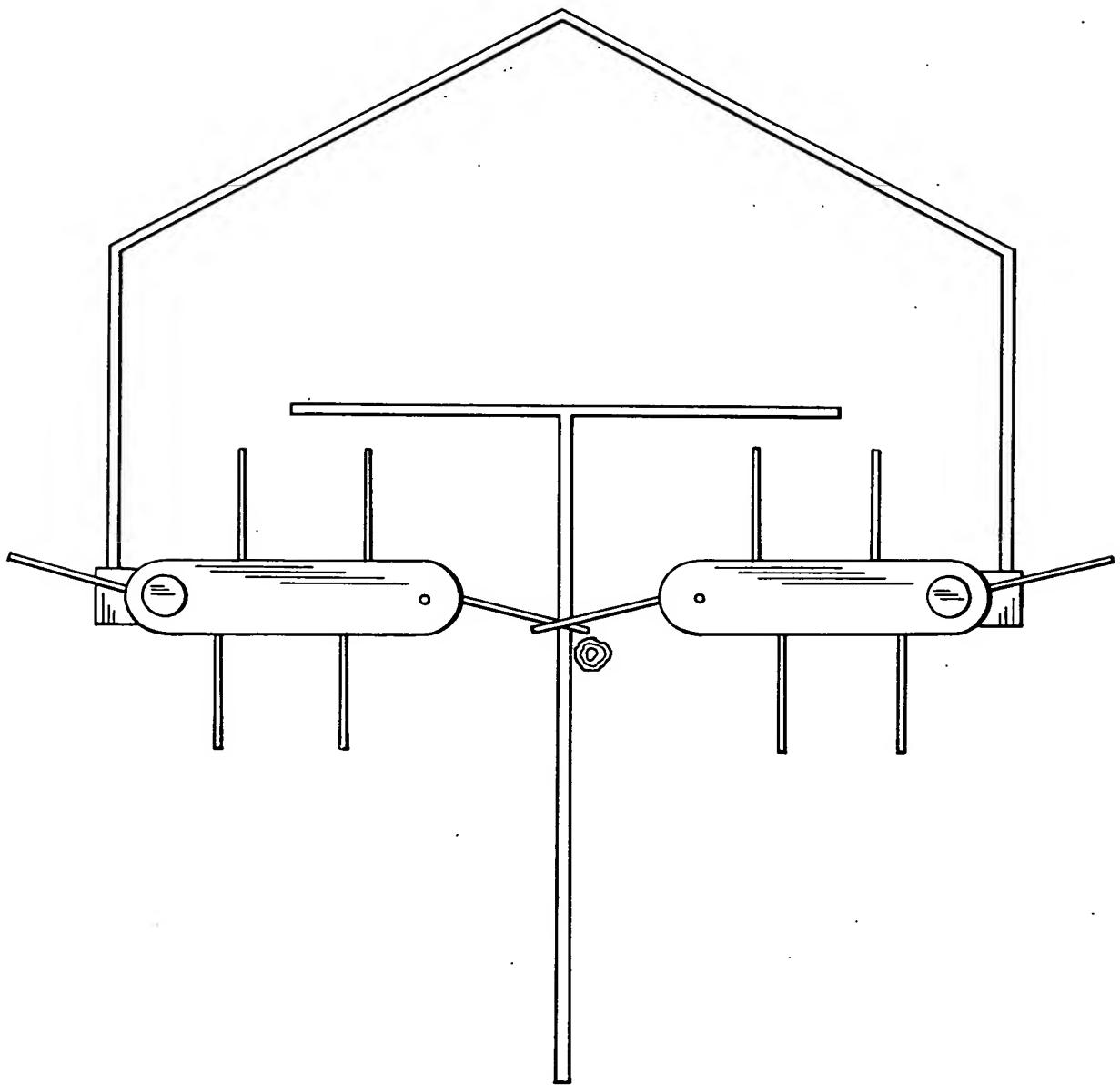


FIG. 28

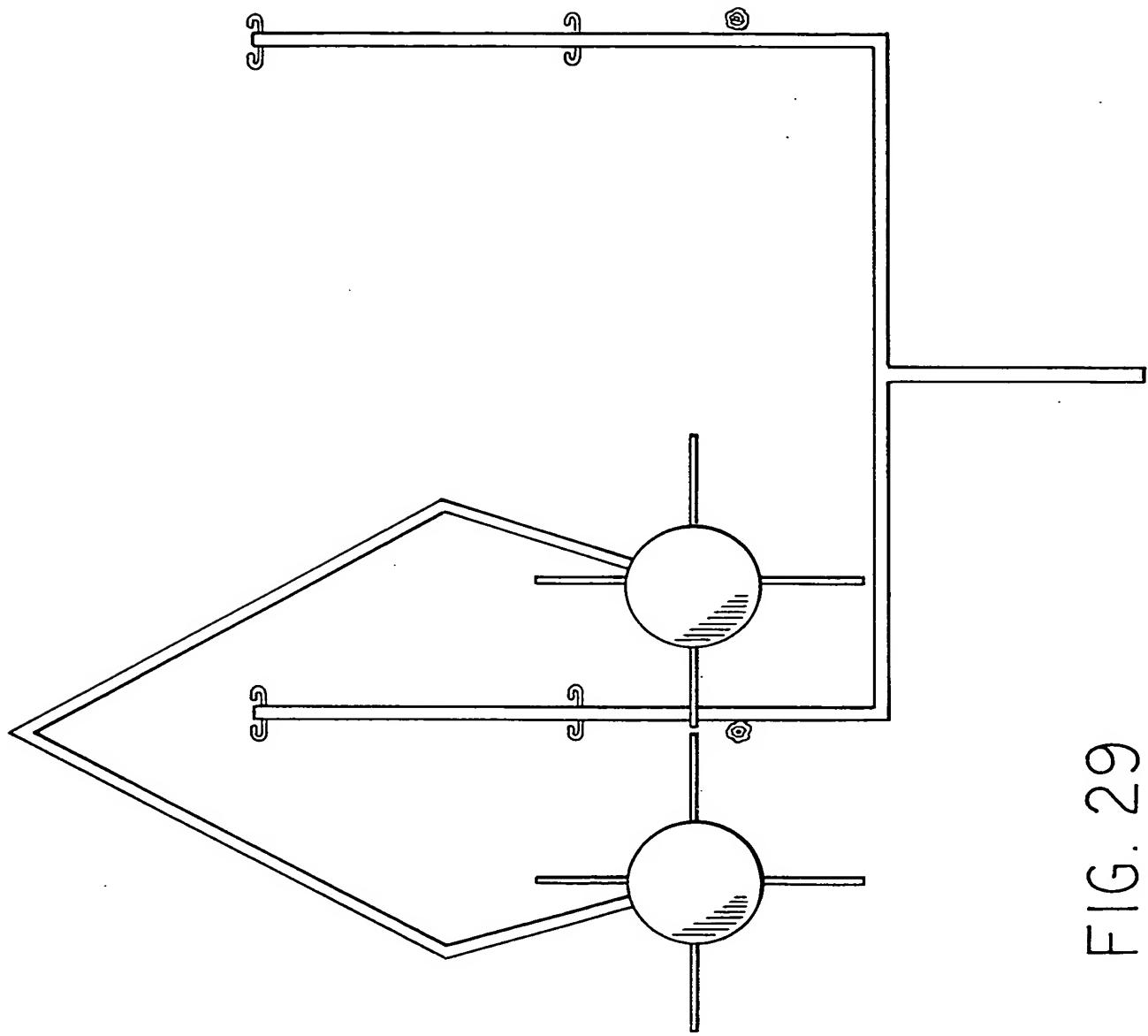


FIG. 29.

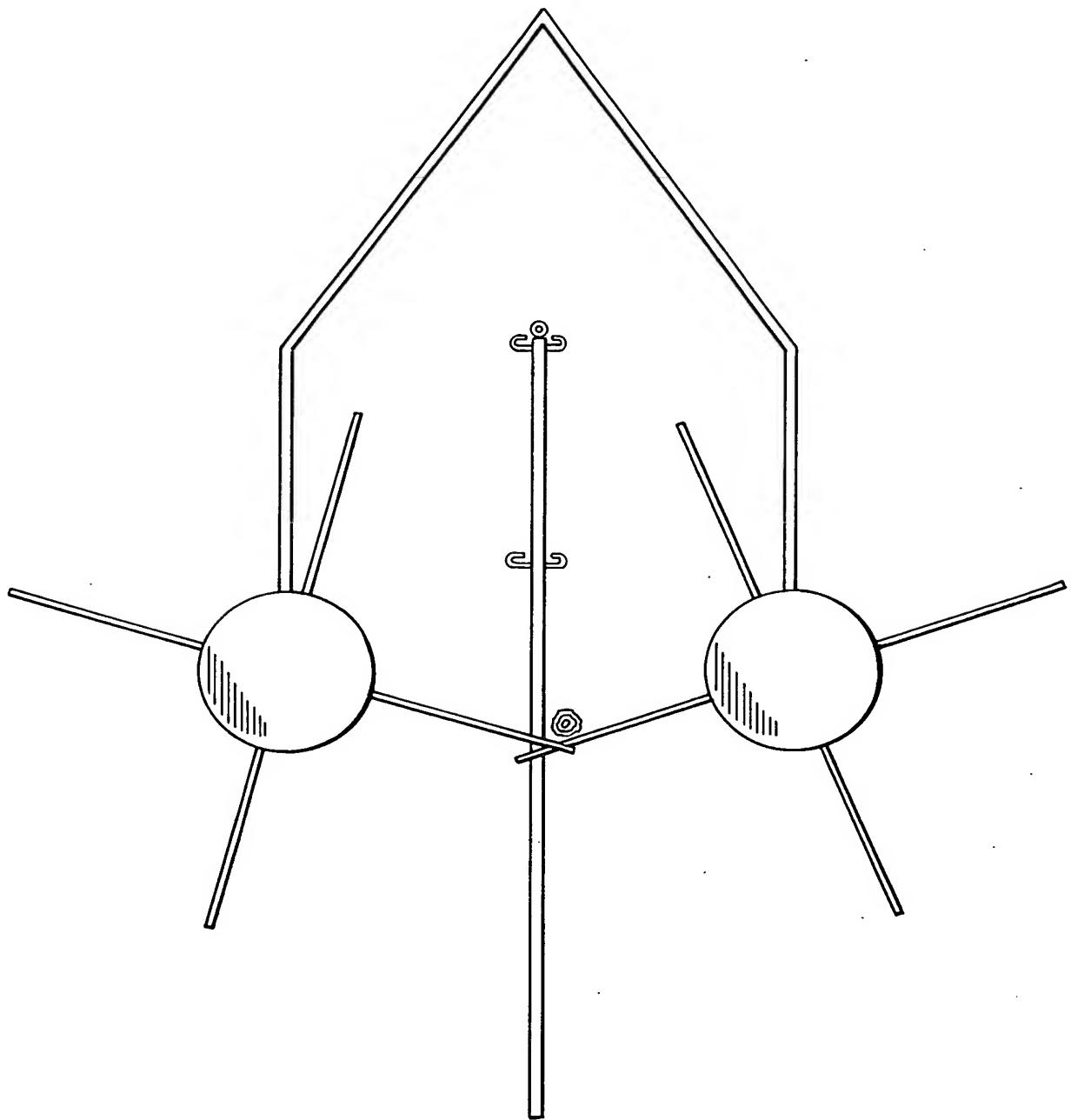


FIG. 30

4,039,443-4 1978-1-30

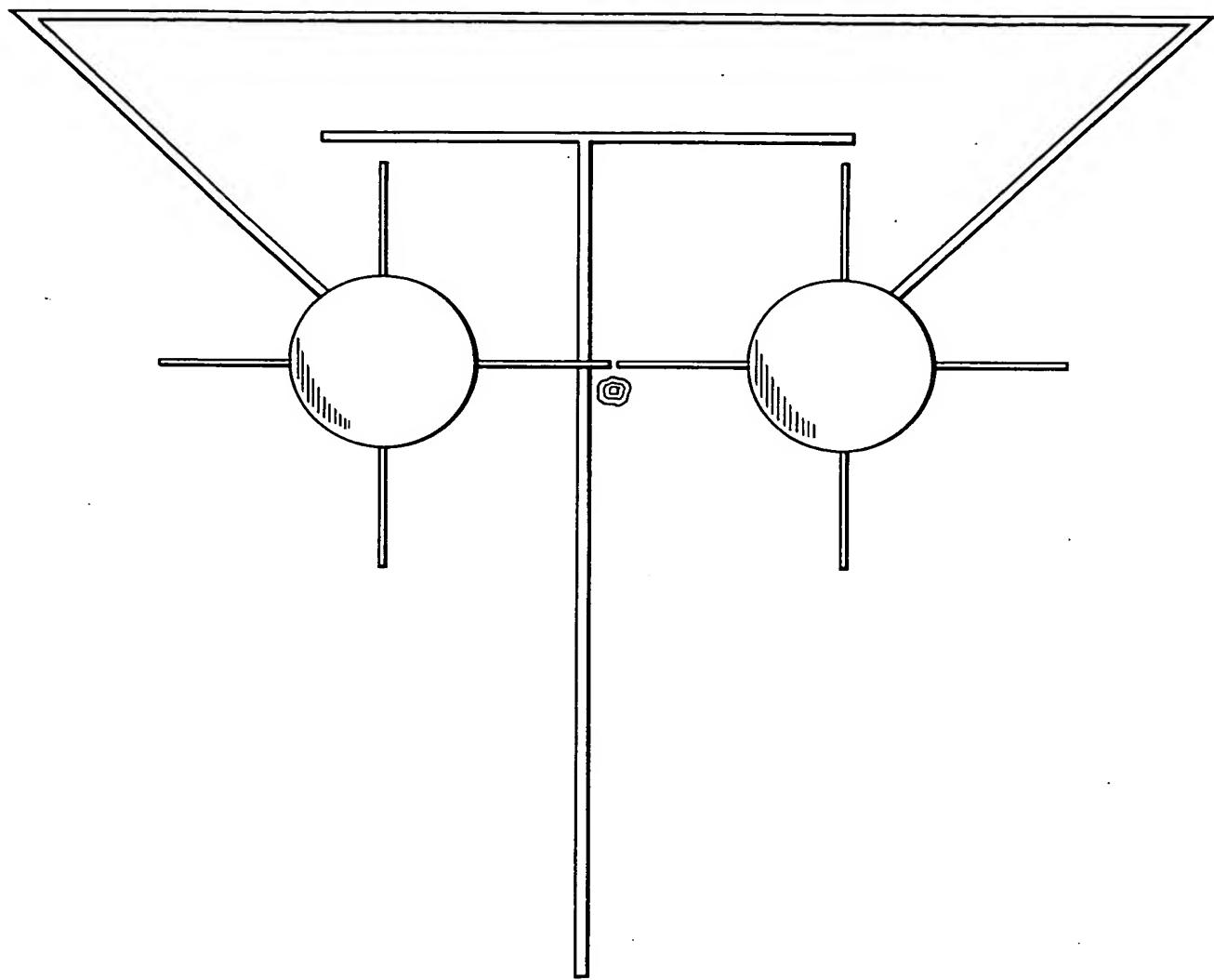


FIG. 31

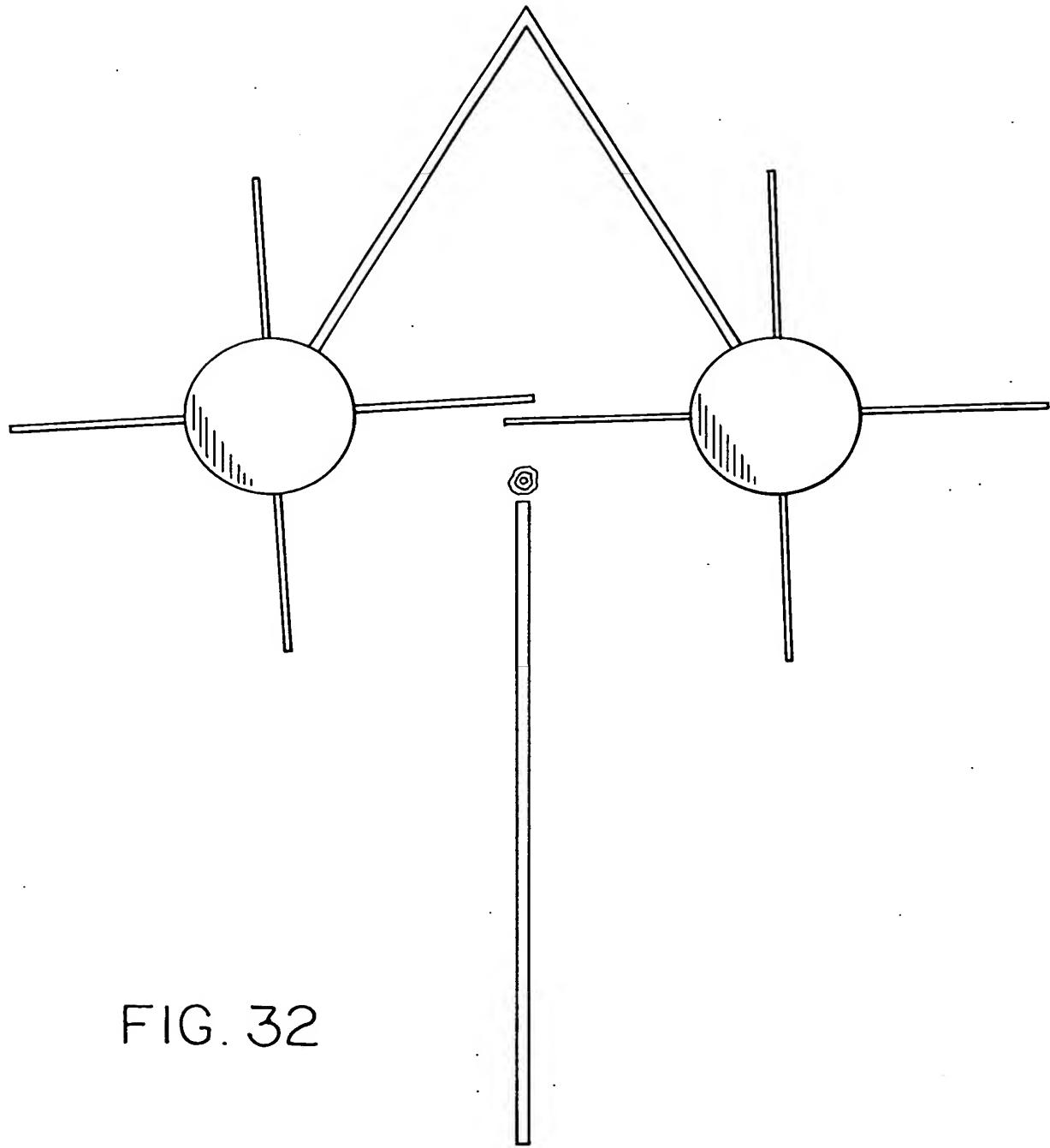
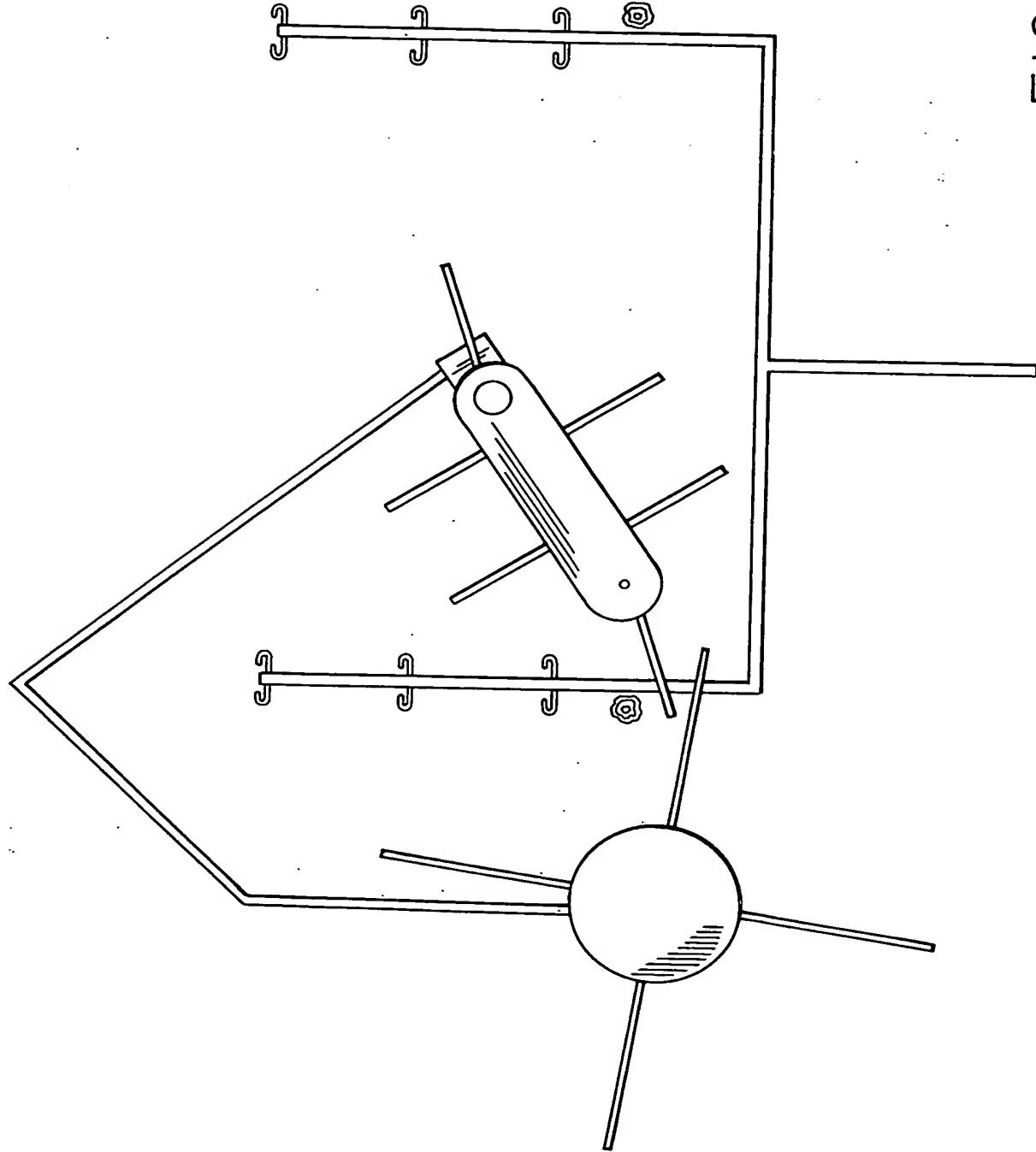


FIG. 32

FIG. 33



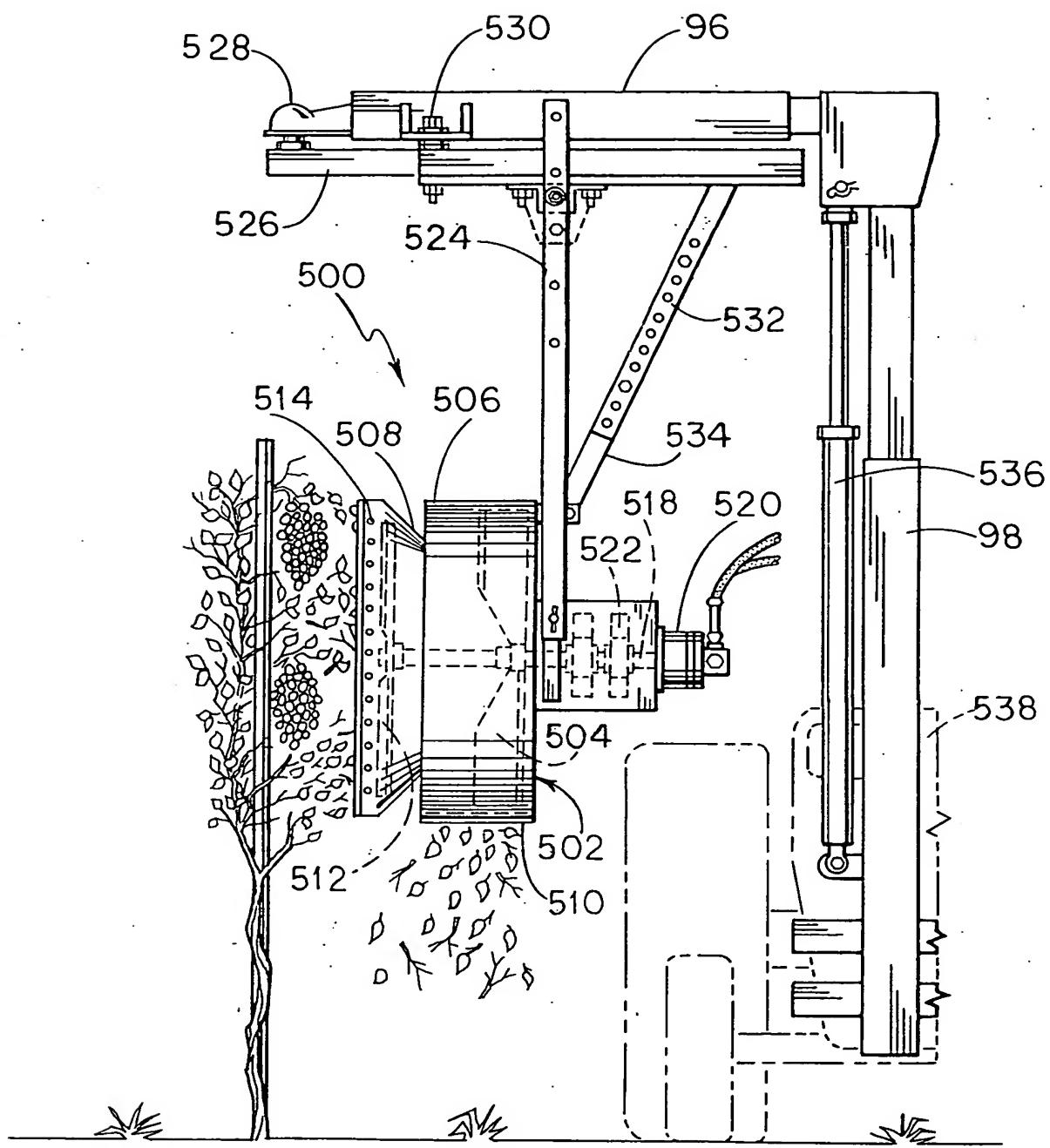


FIG. 34

2005-200 " in FIGURE FORTY

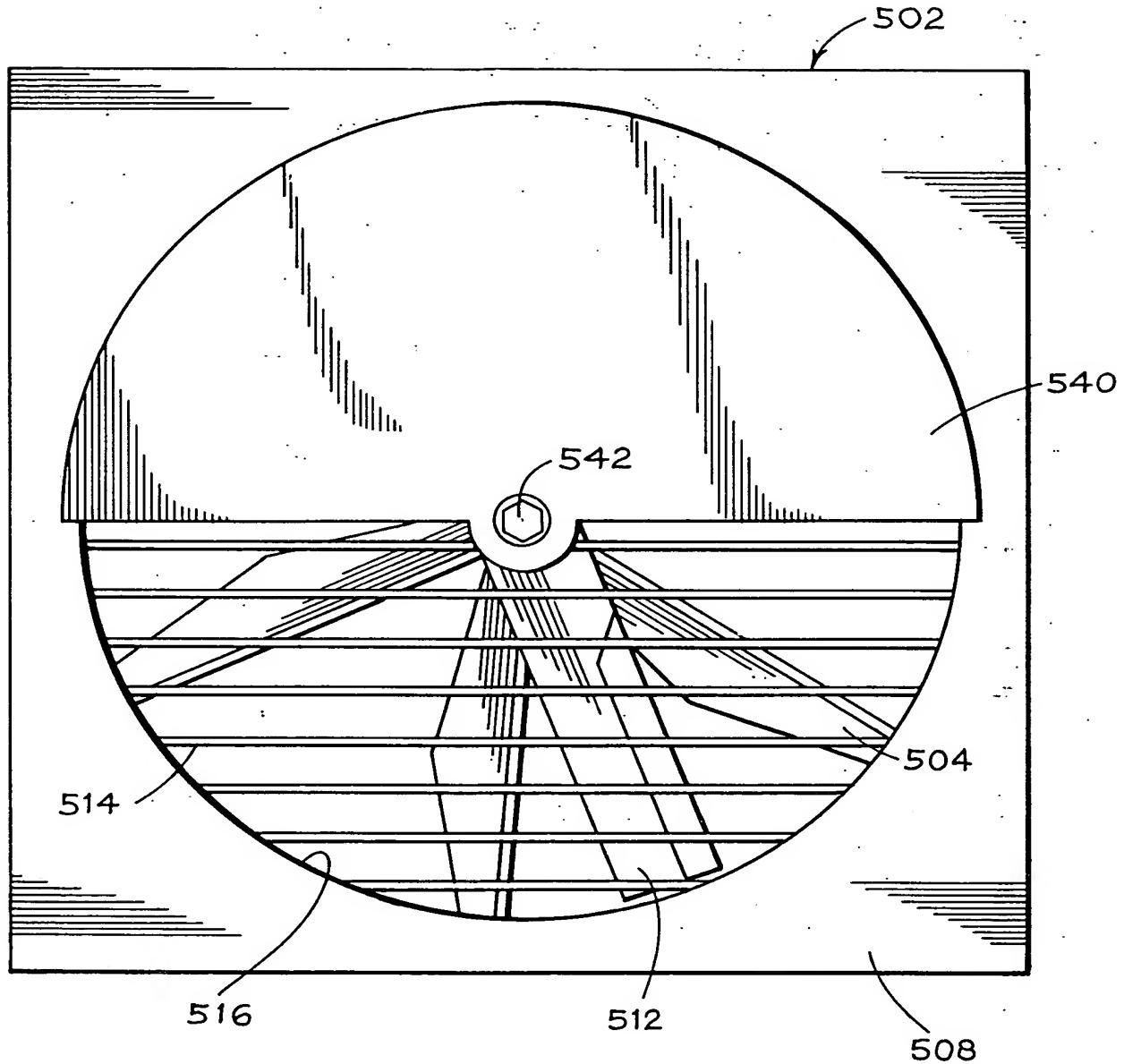


FIG. 35

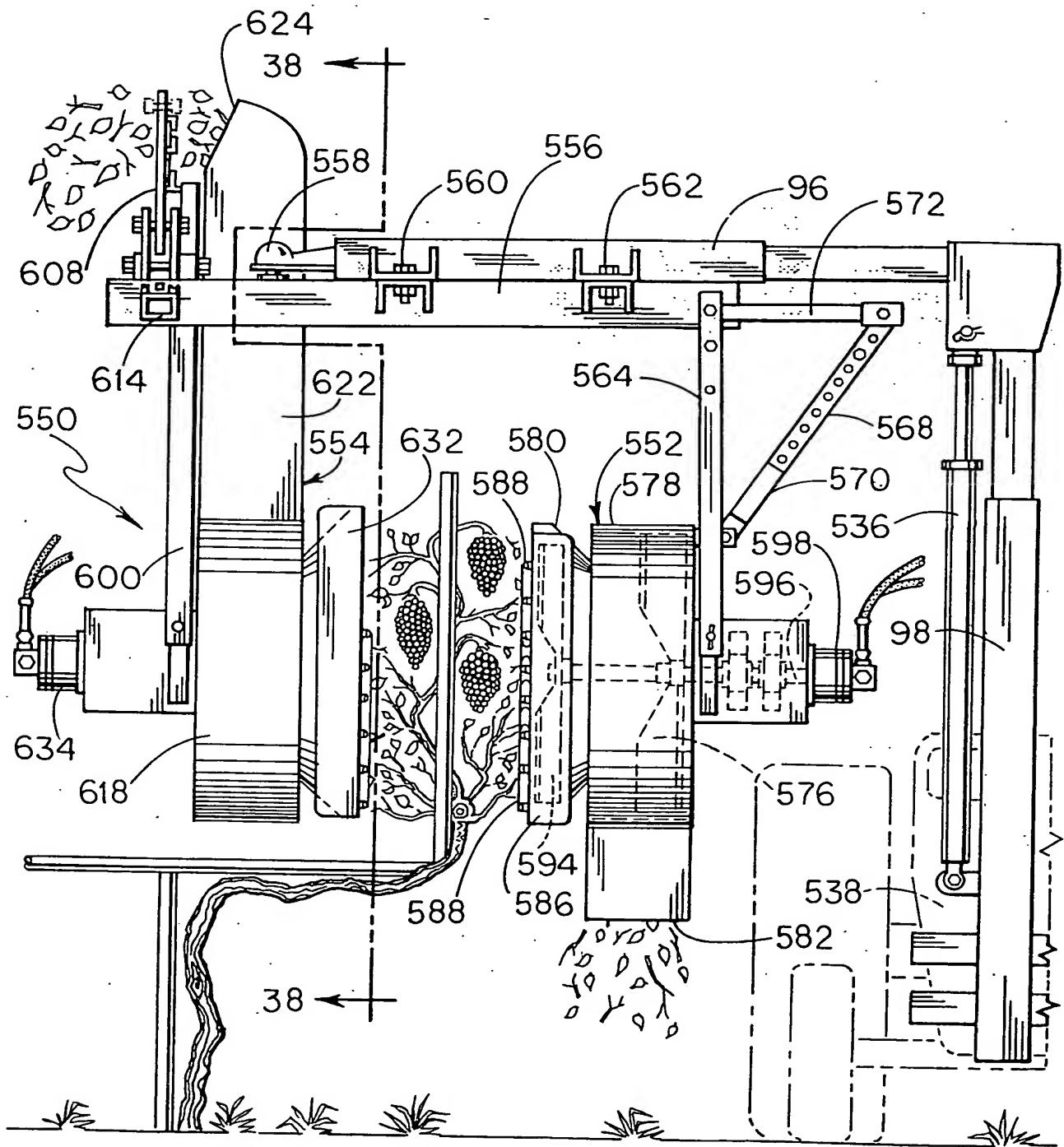
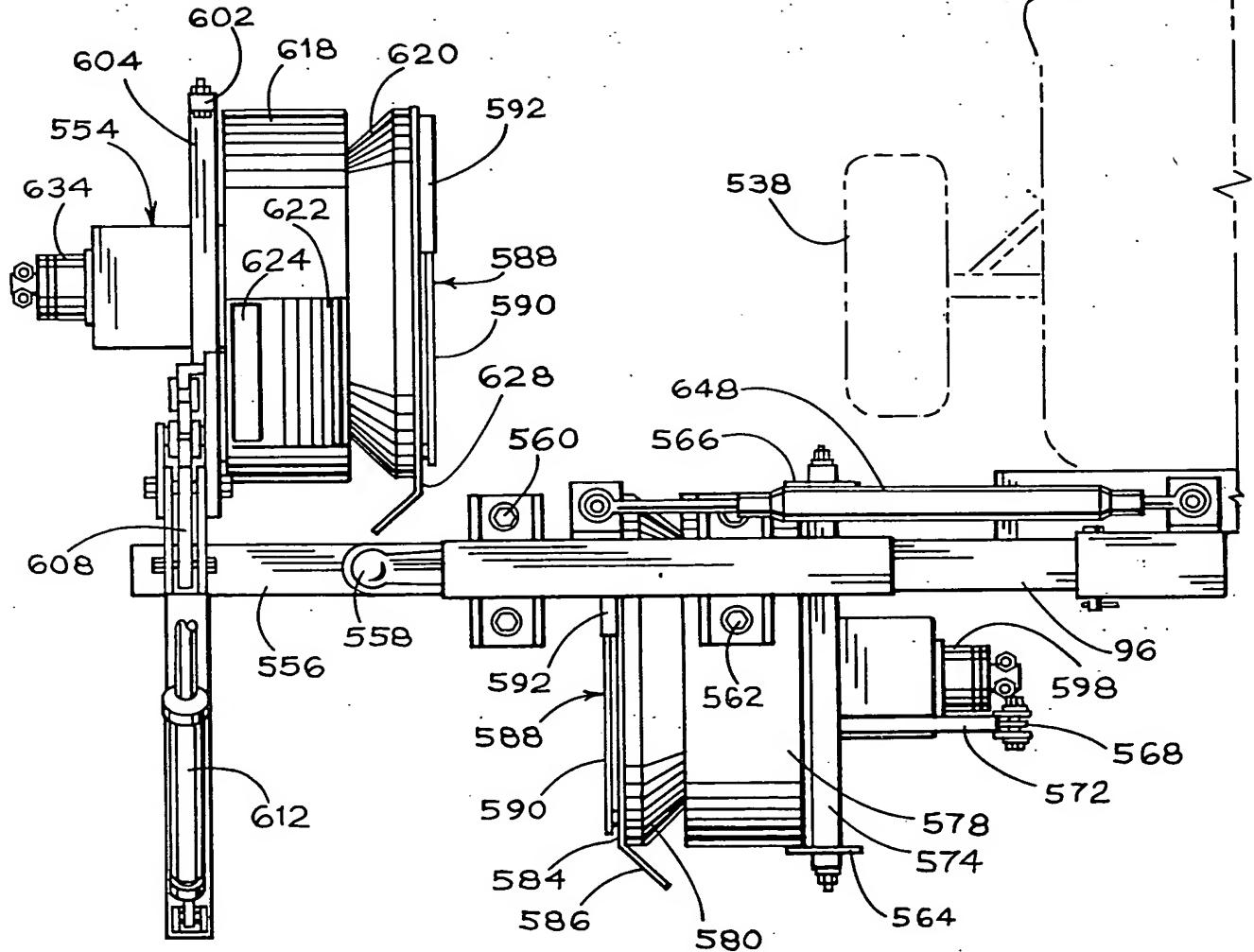


FIG. 36

FIG. 37



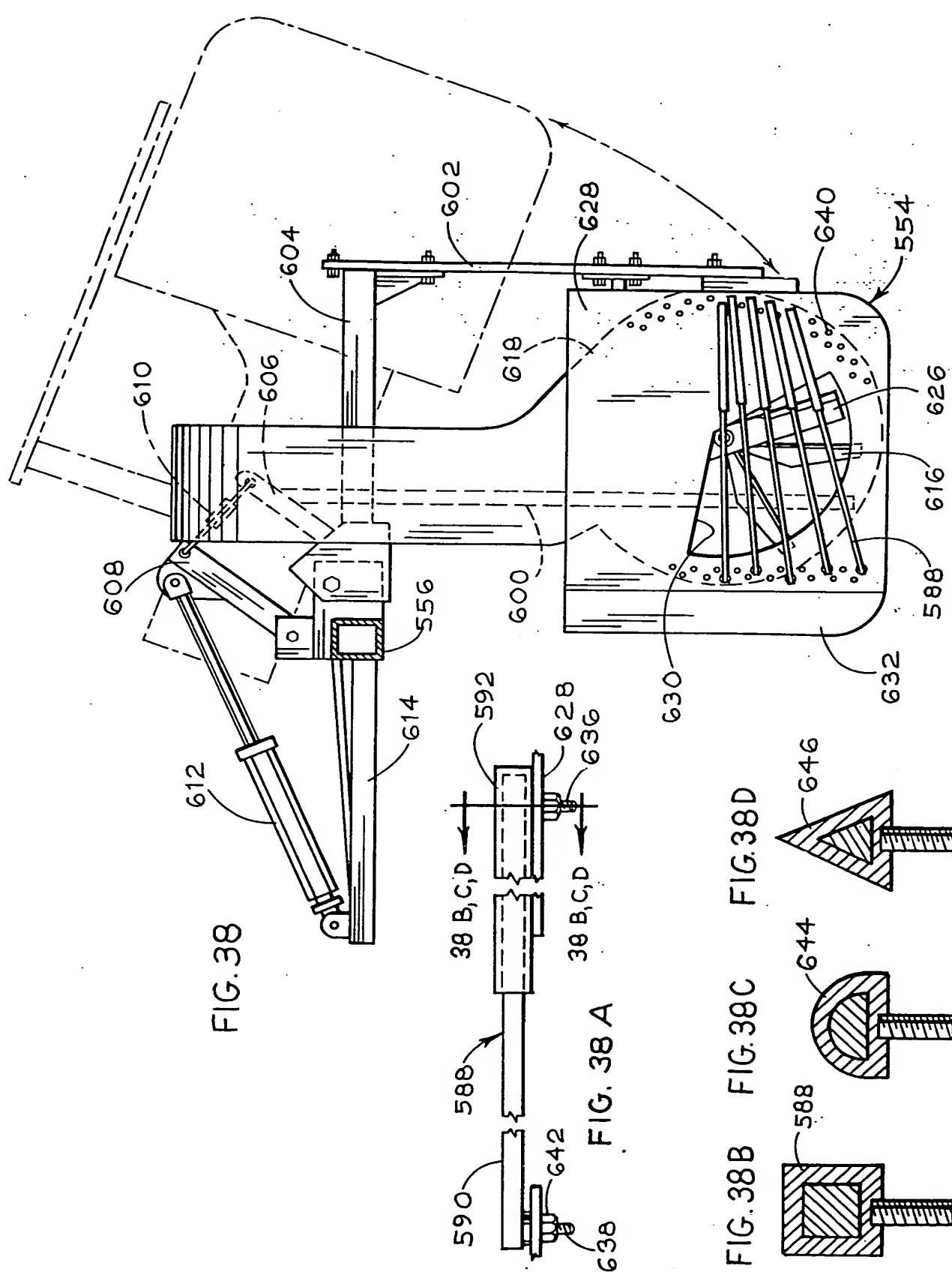
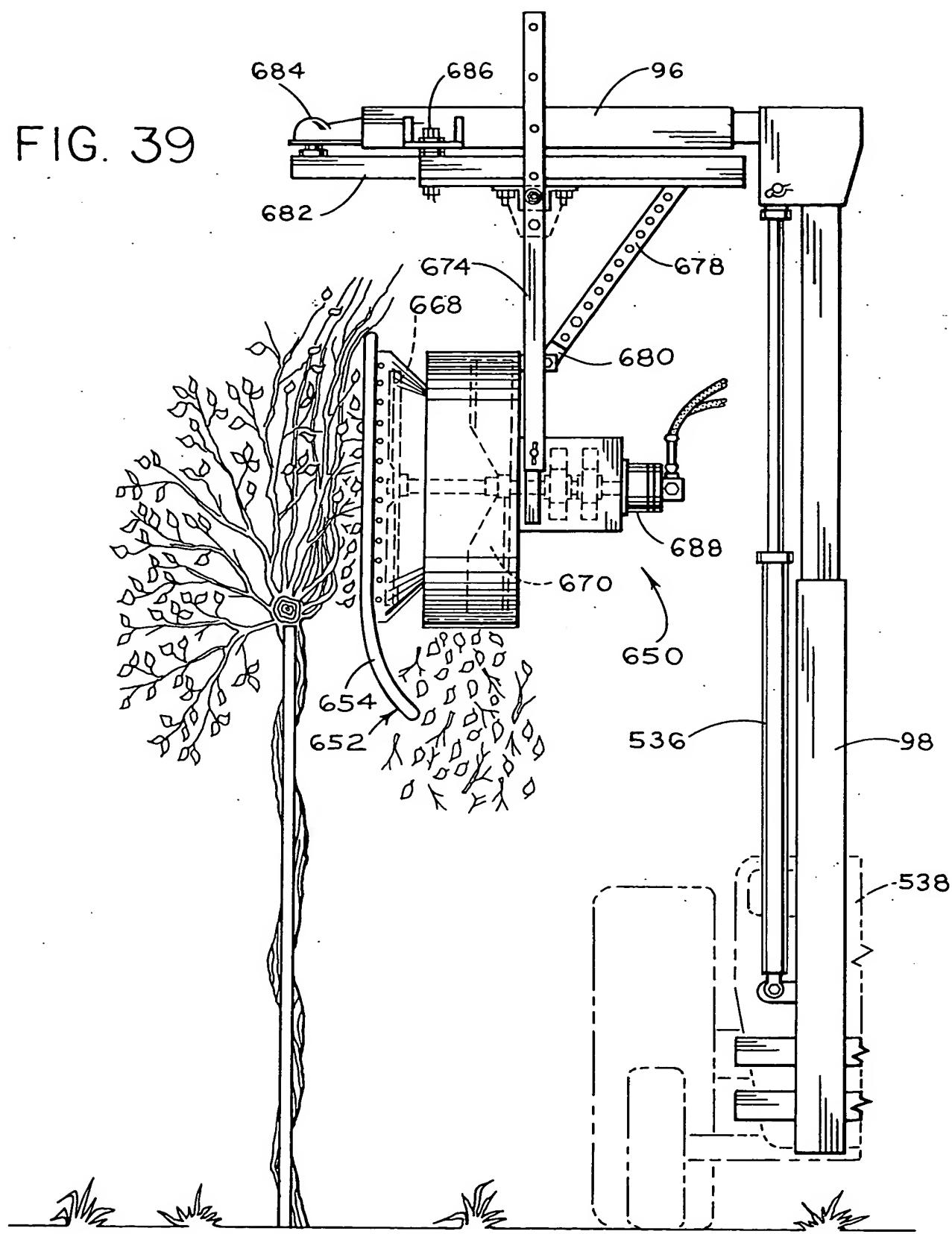


FIG. 39



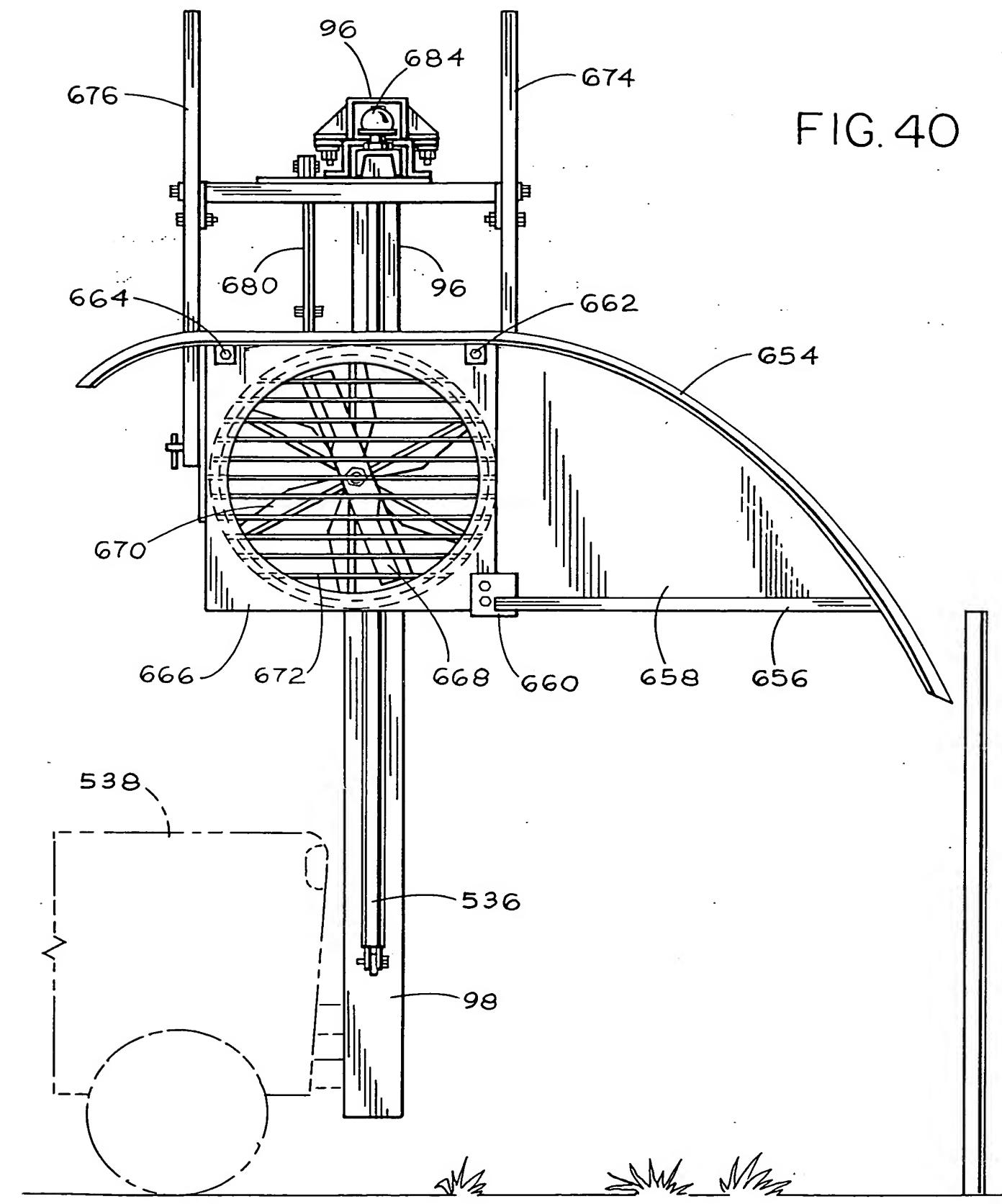


FIG. 40

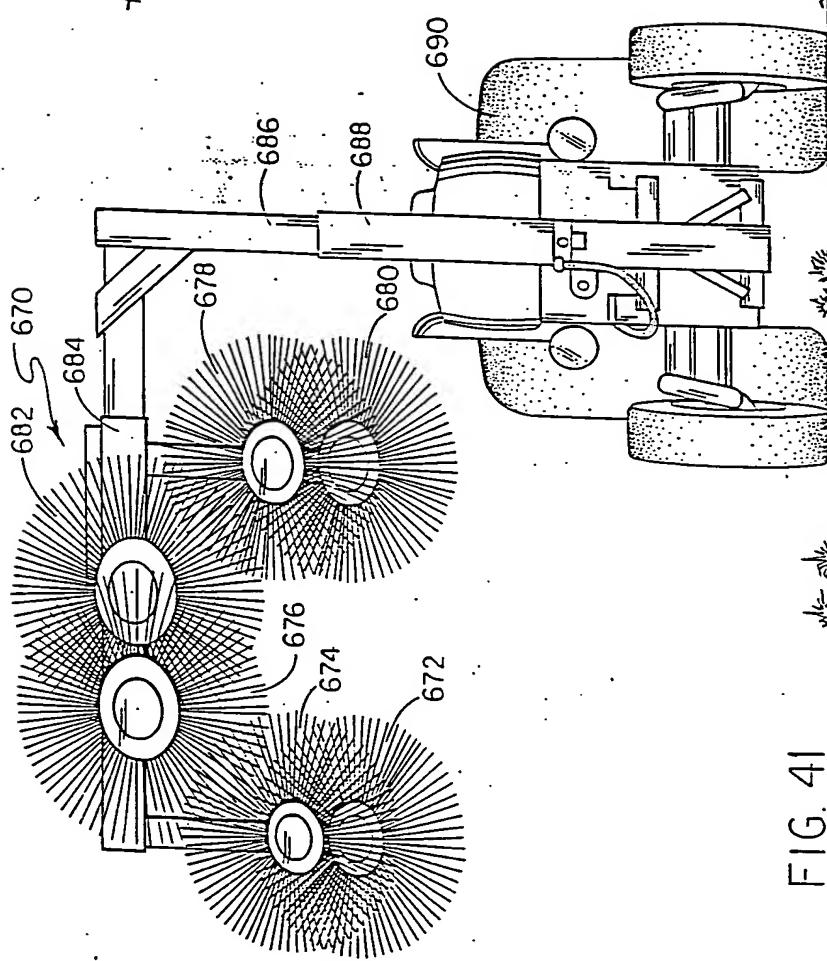


FIG. 41

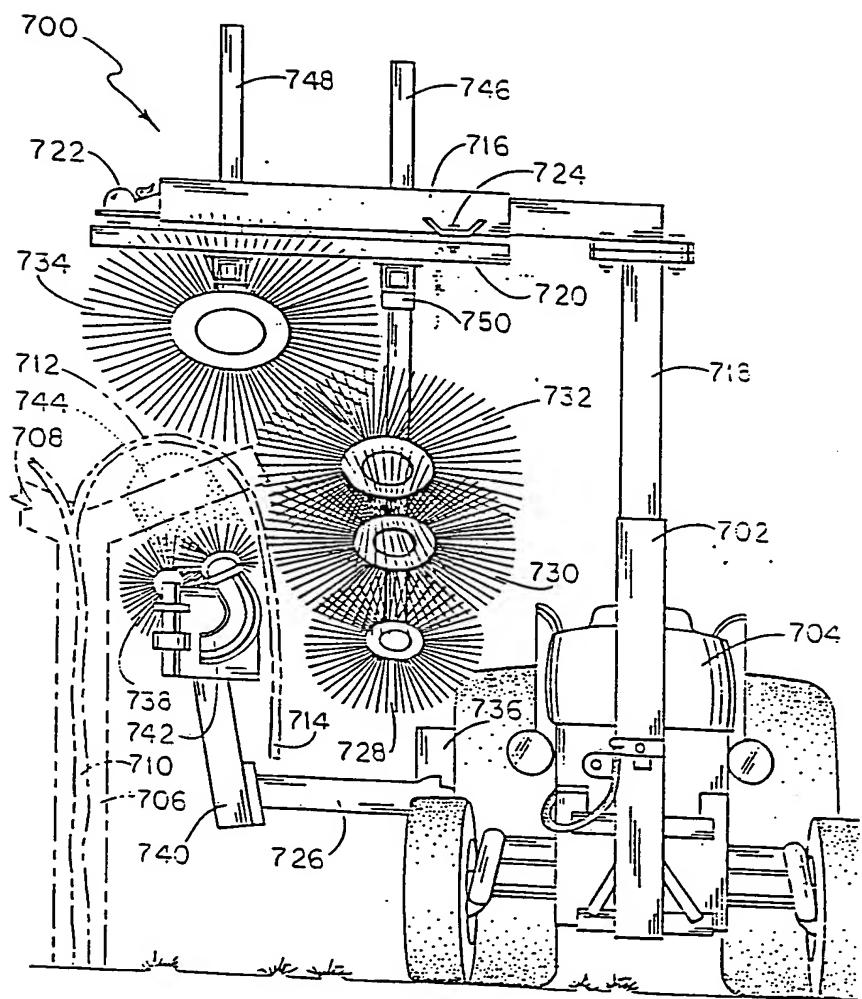


FIG. 42

2024 SG - 476000

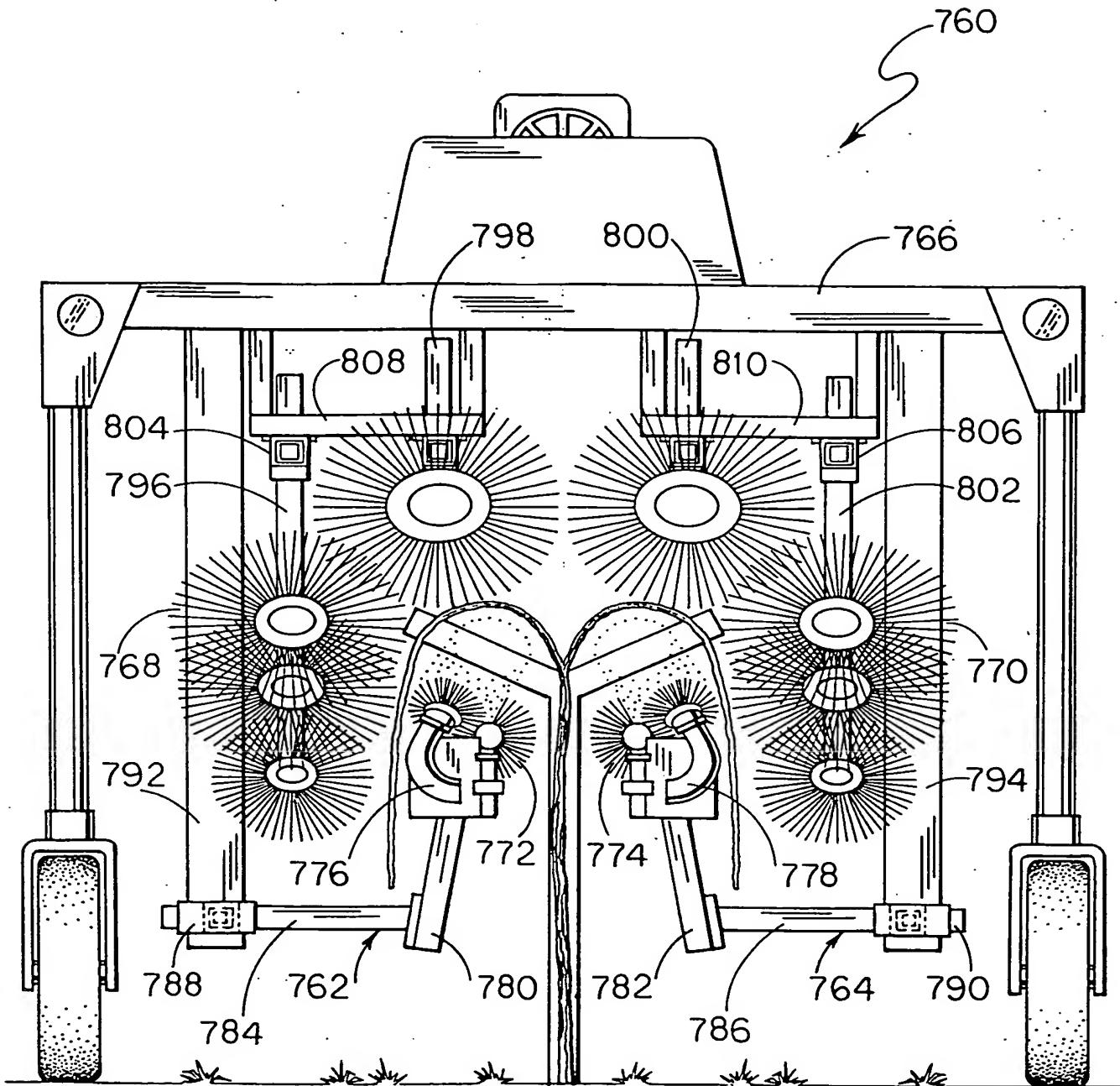


FIG. 42A

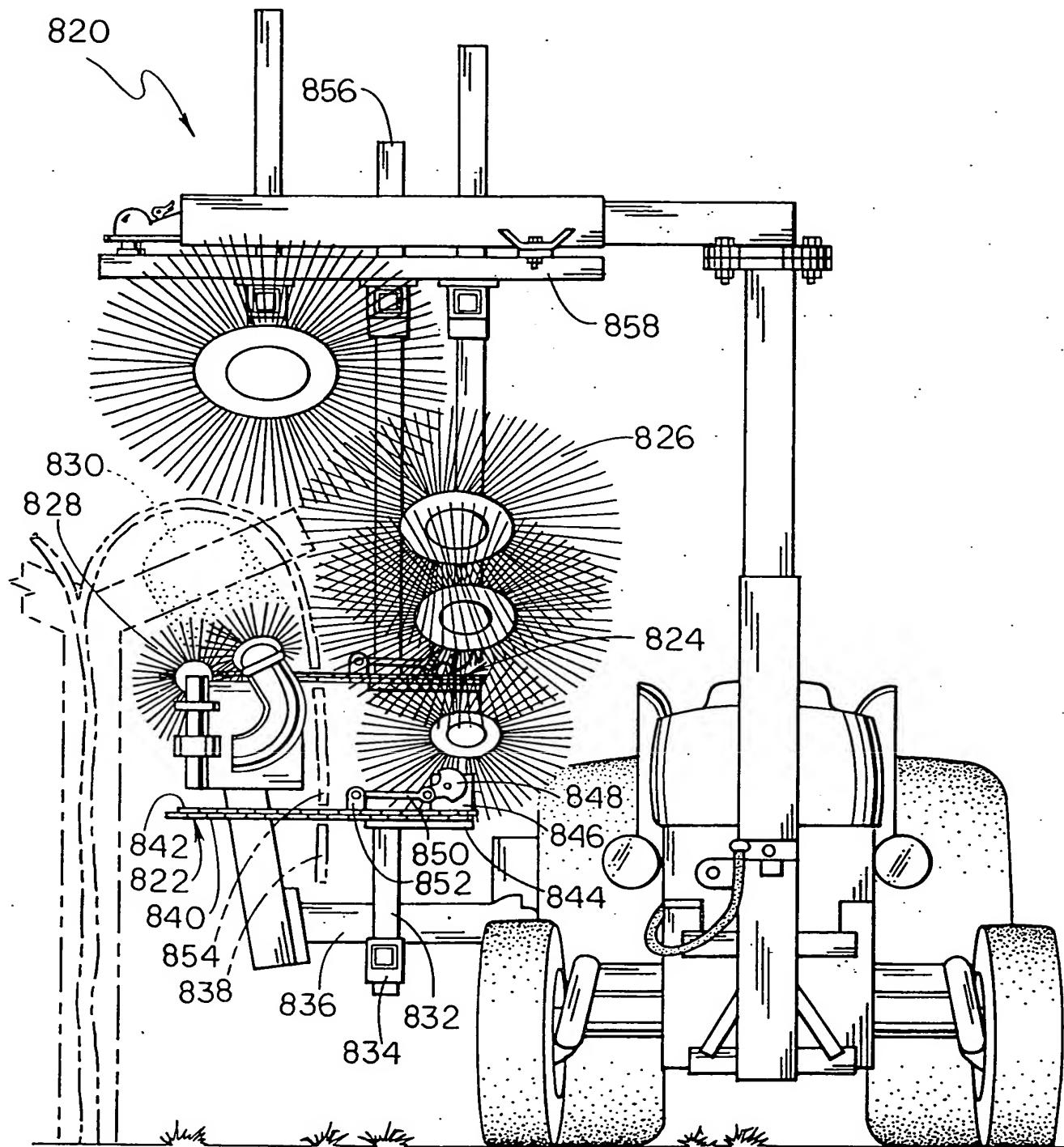


FIG. 43

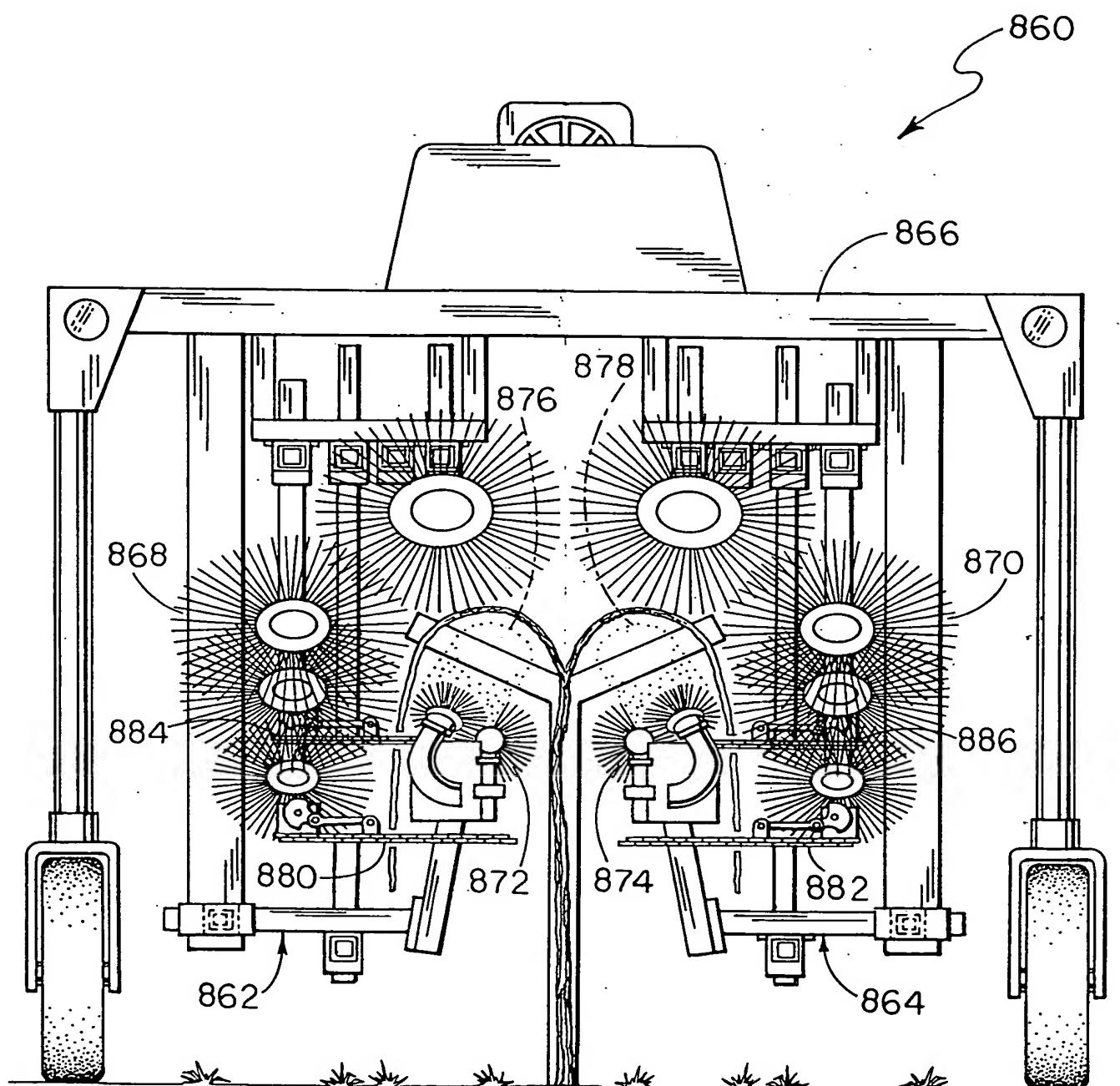


FIG. 43A

+

FIG. 44

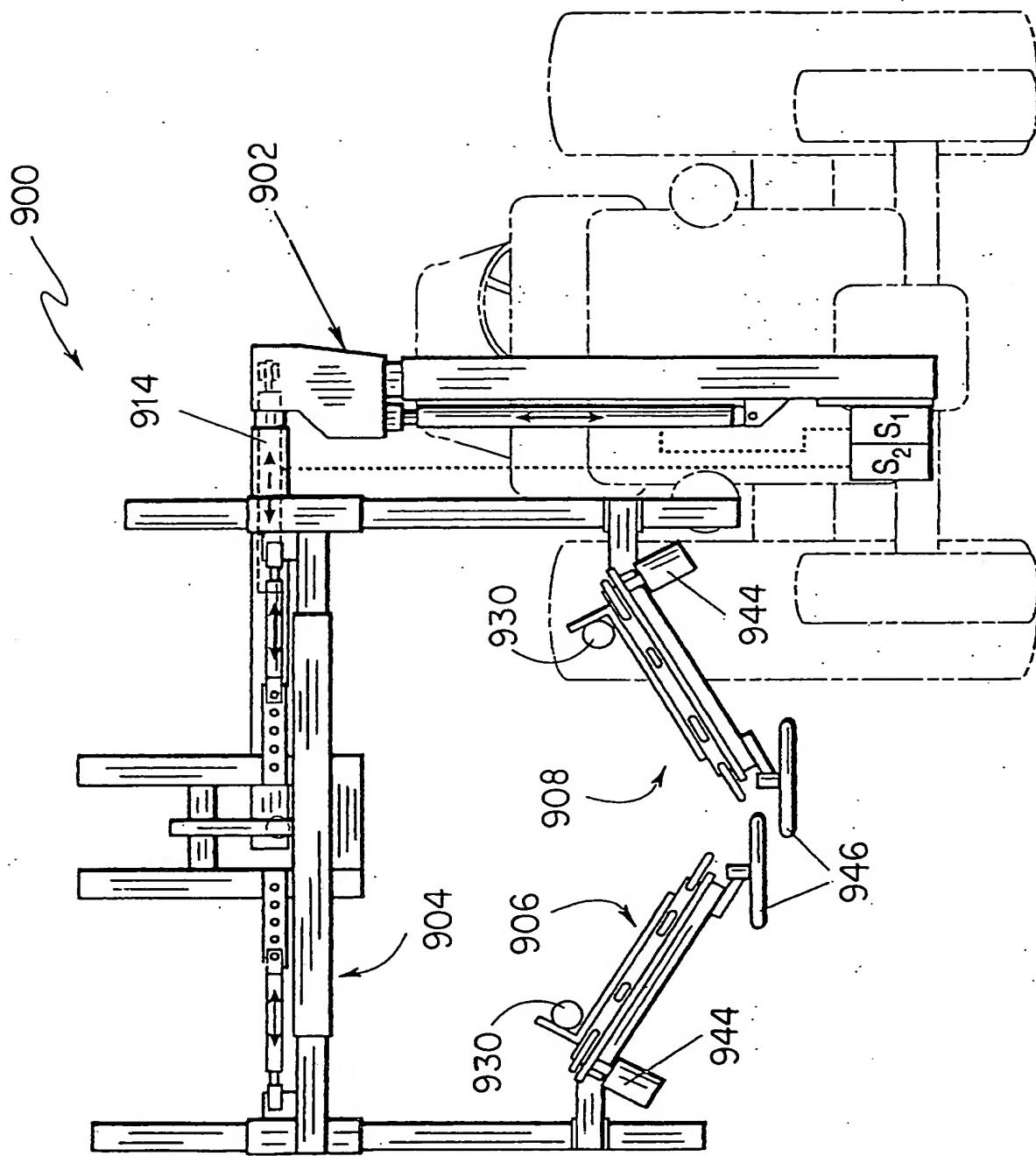
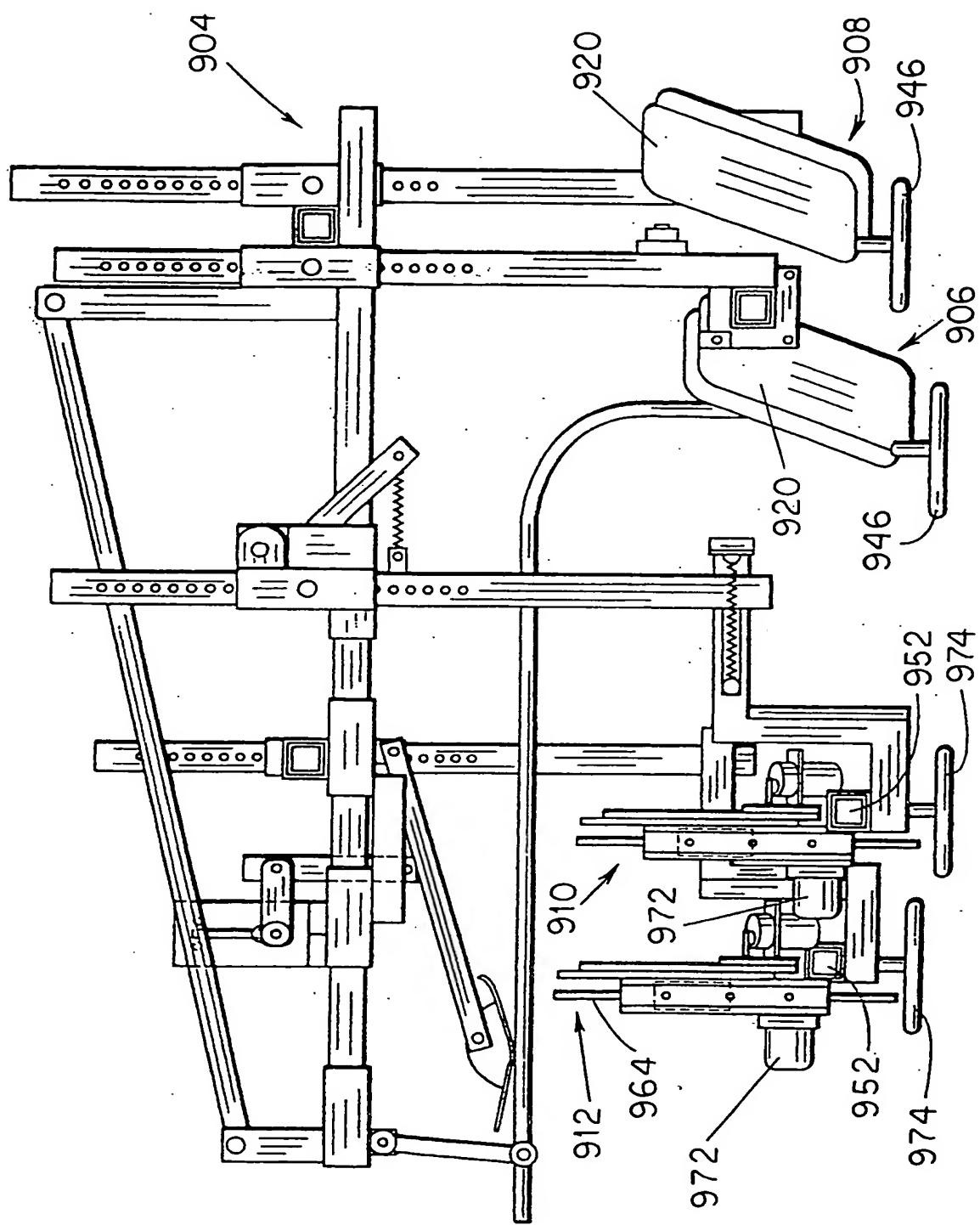


FIG. 45



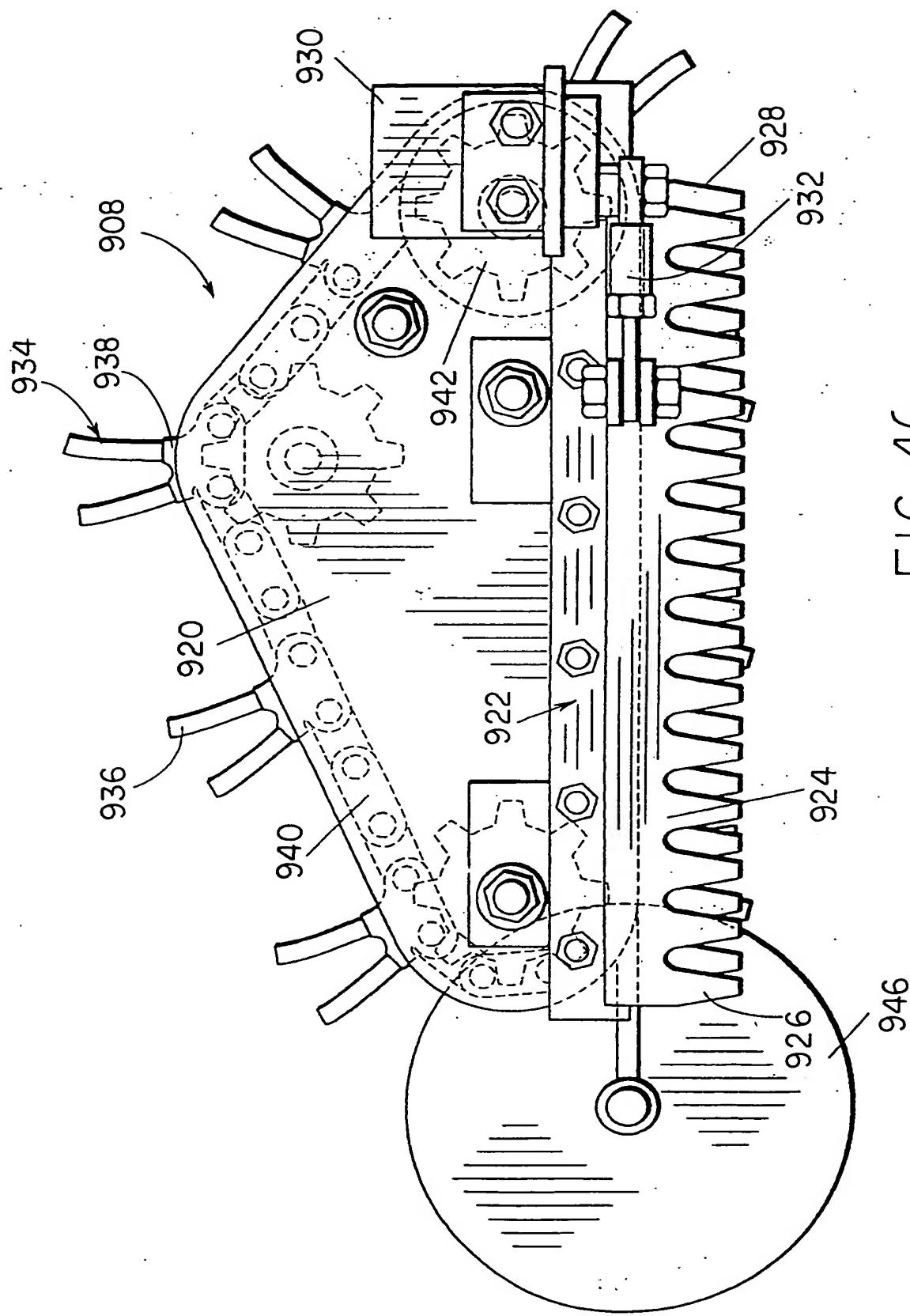


FIG. 46

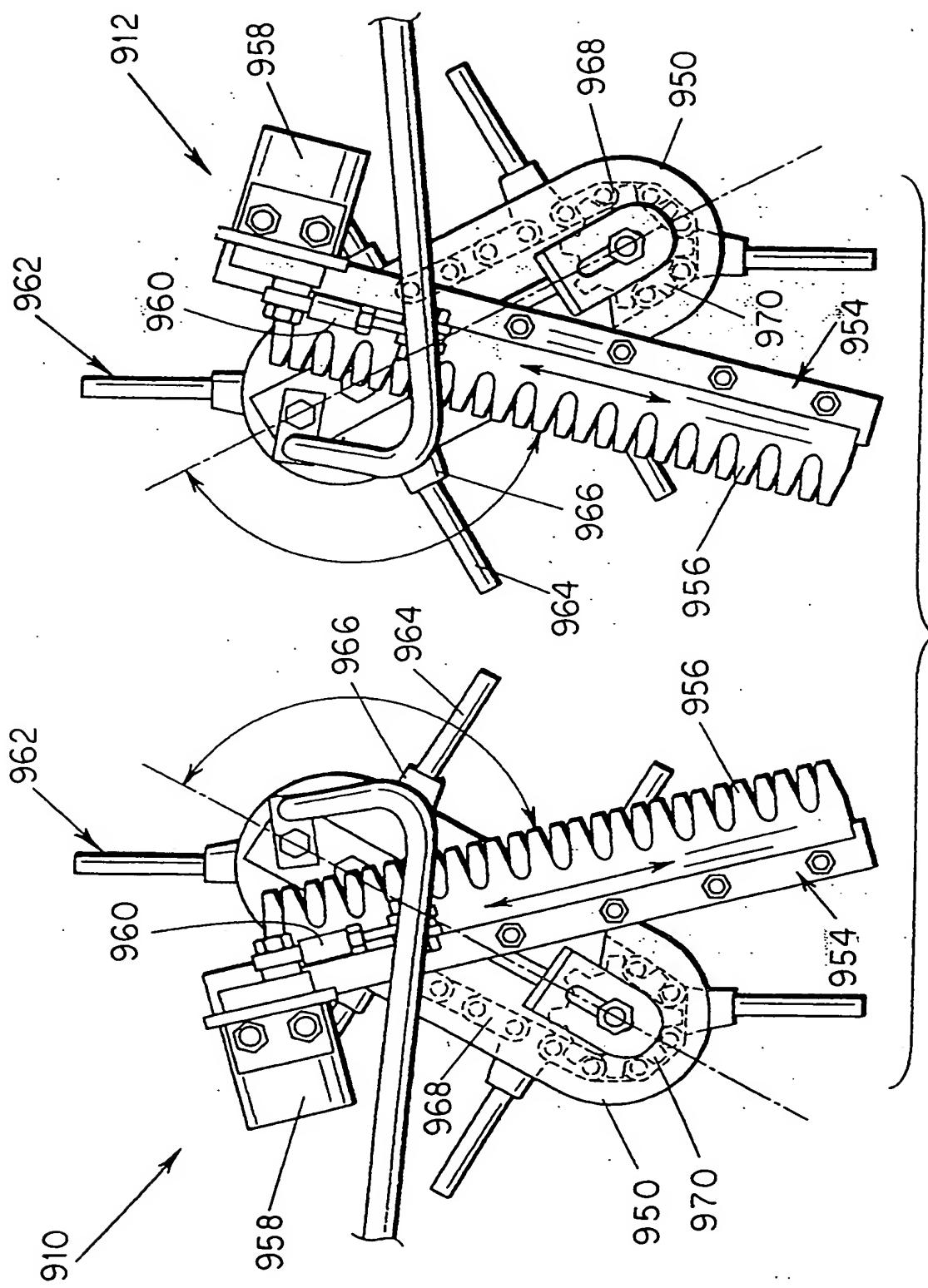


FIG. 47

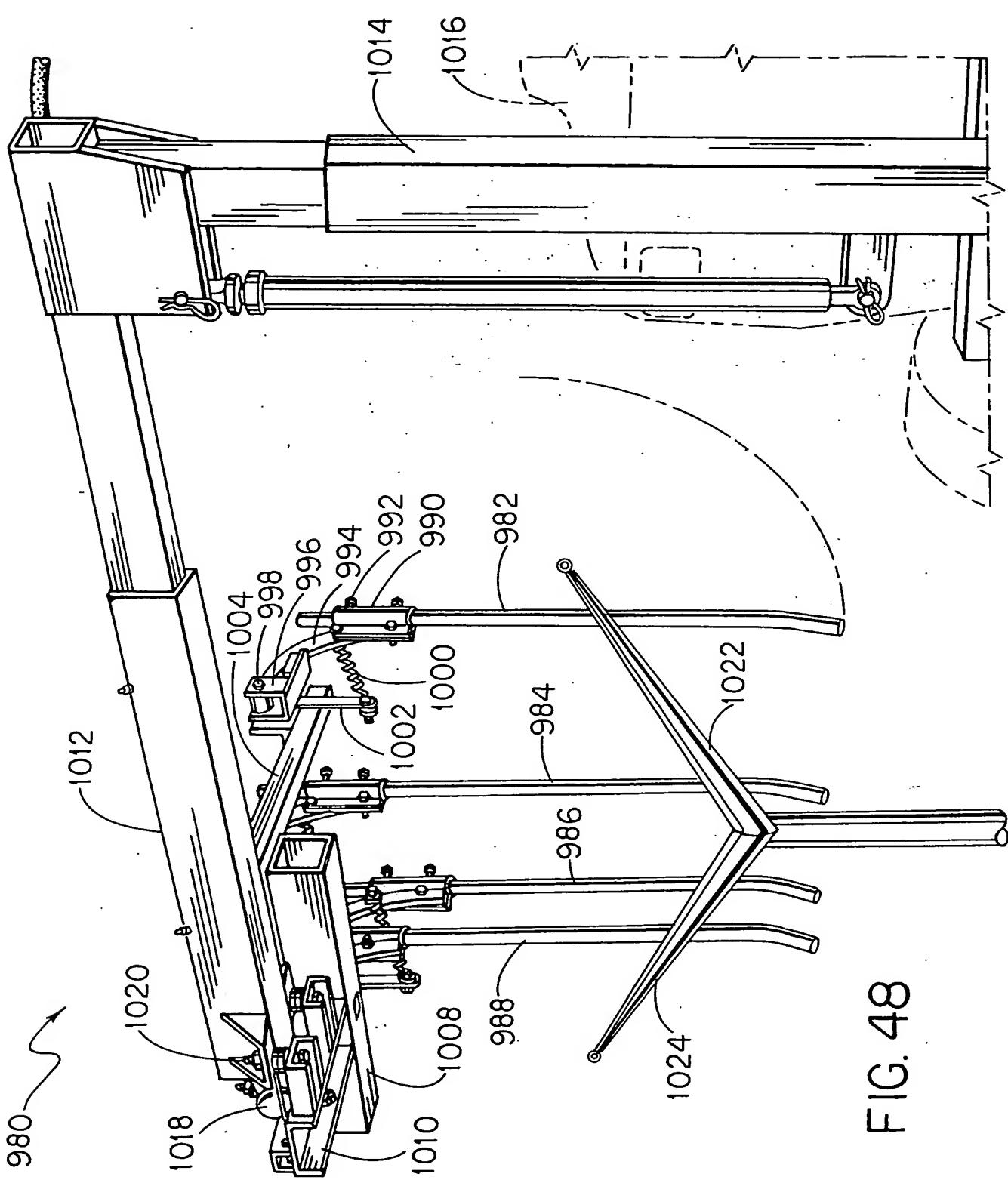


FIG. 48

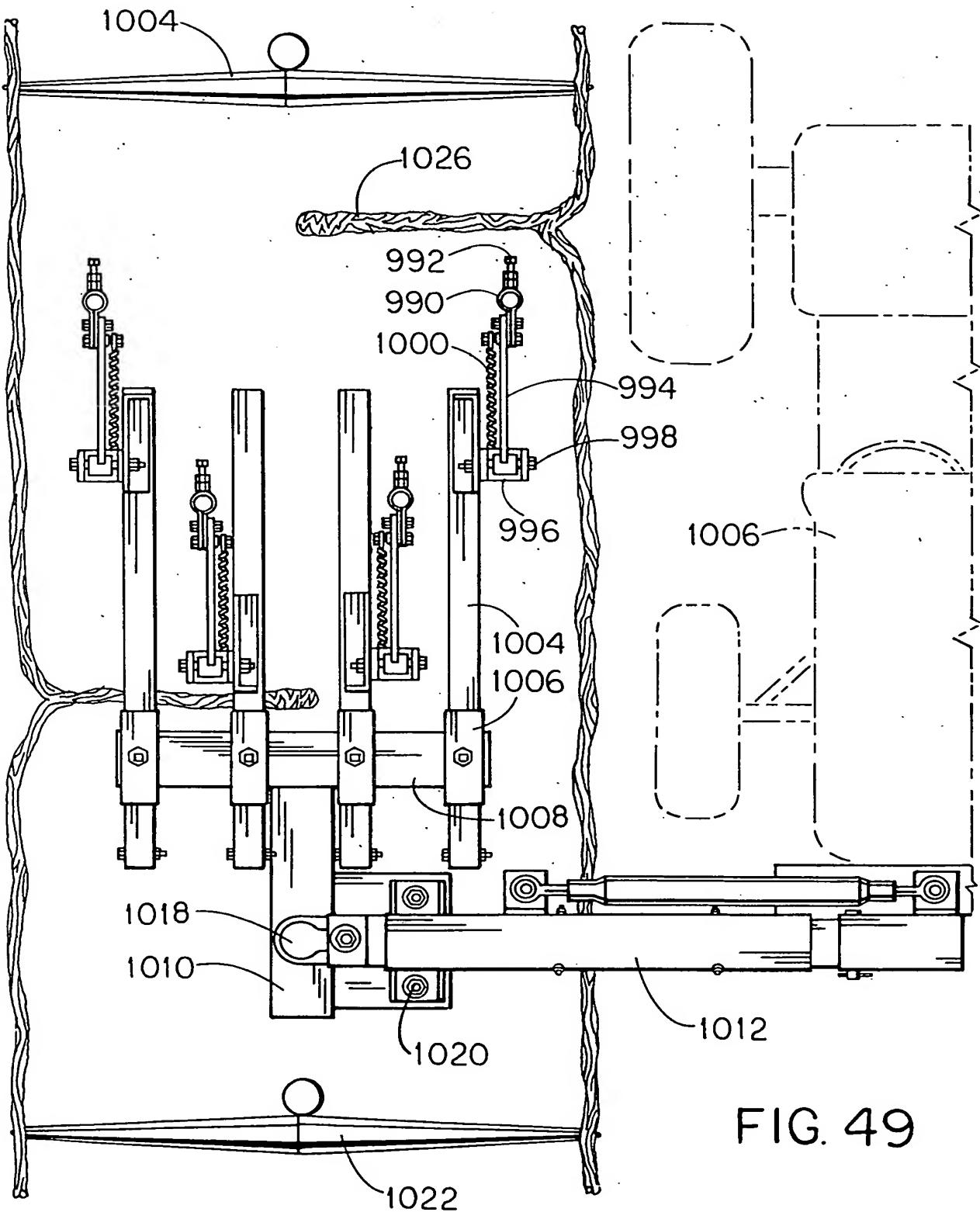


FIG. 49

FIG. 50

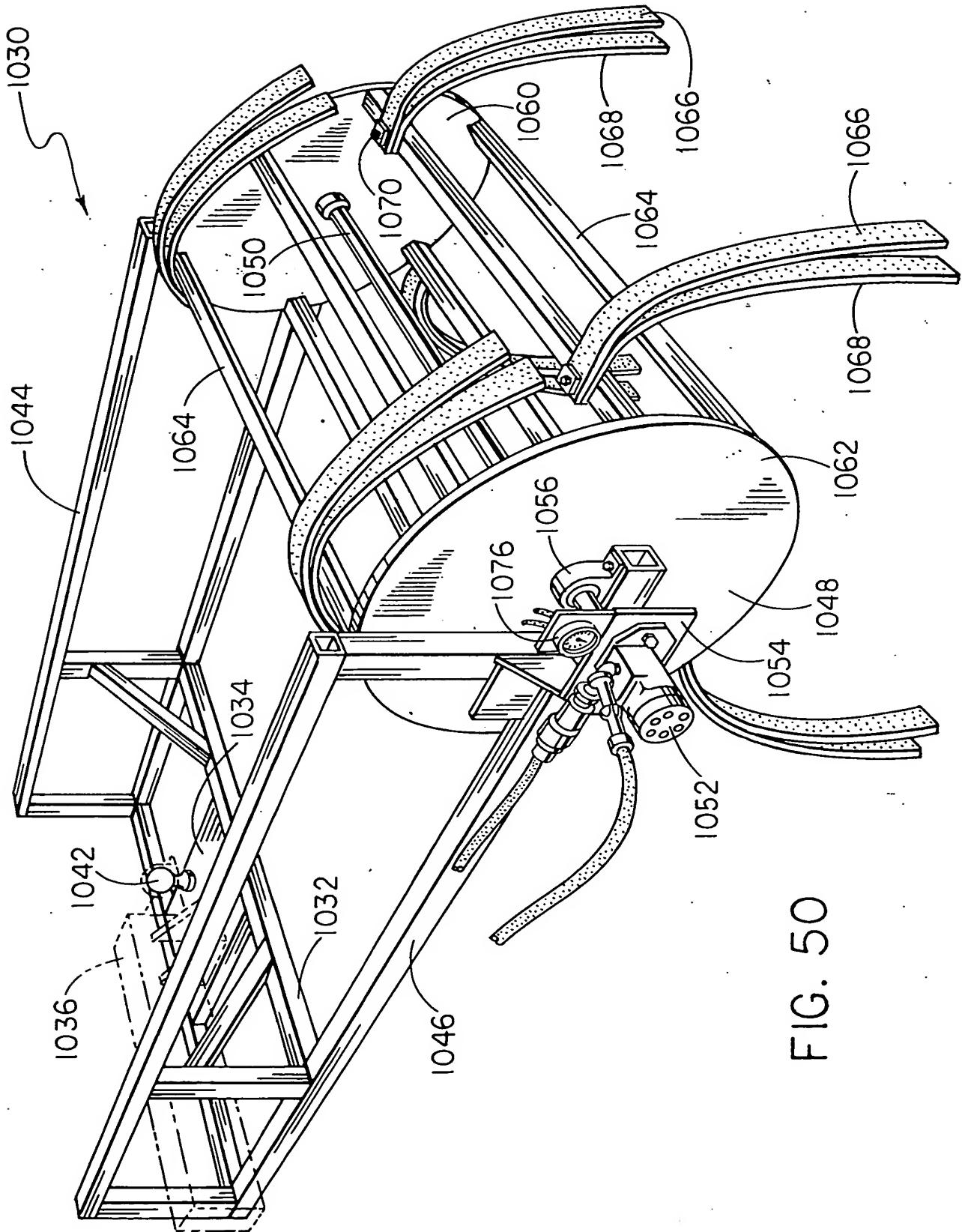


FIG. 51

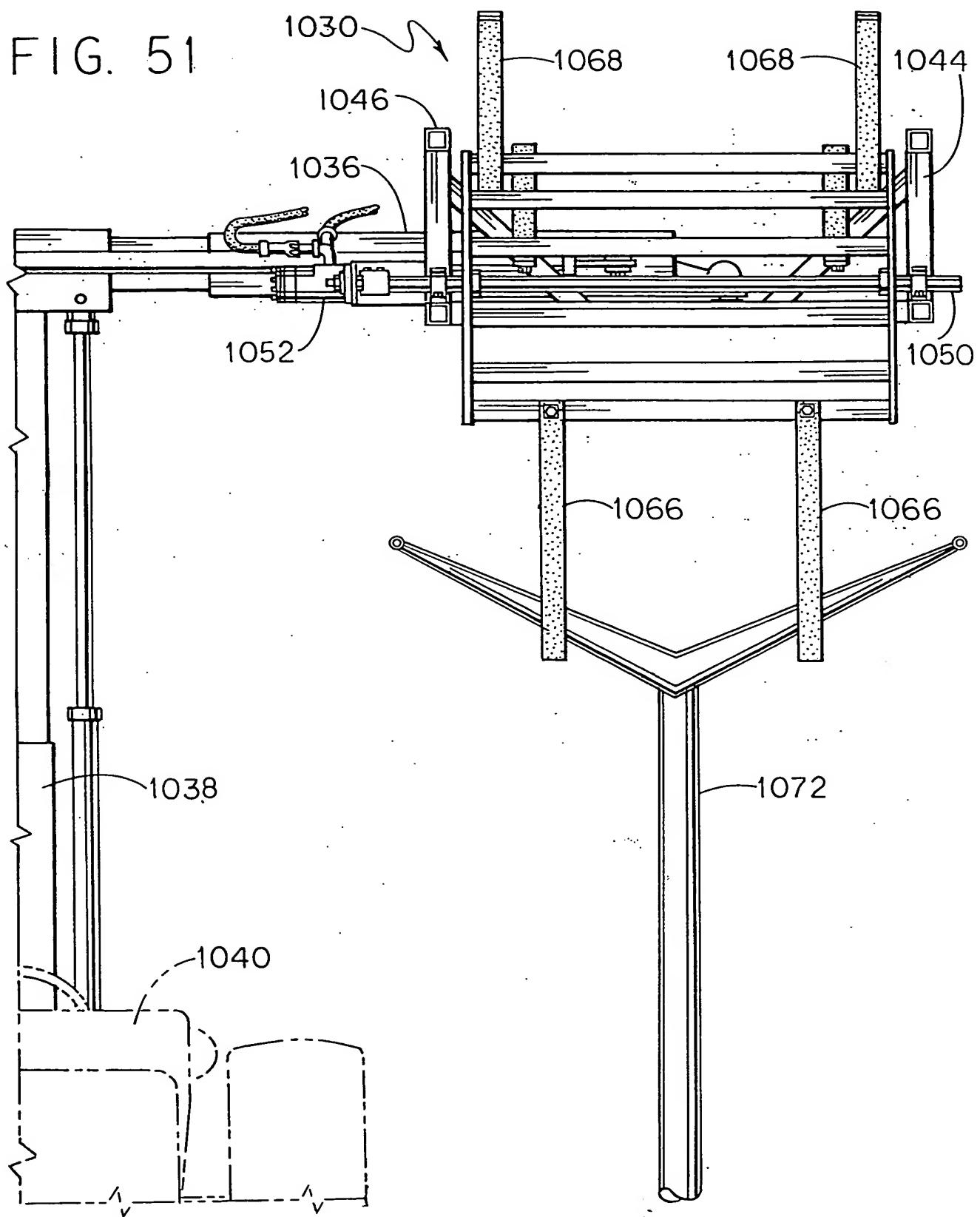


FIG. 52

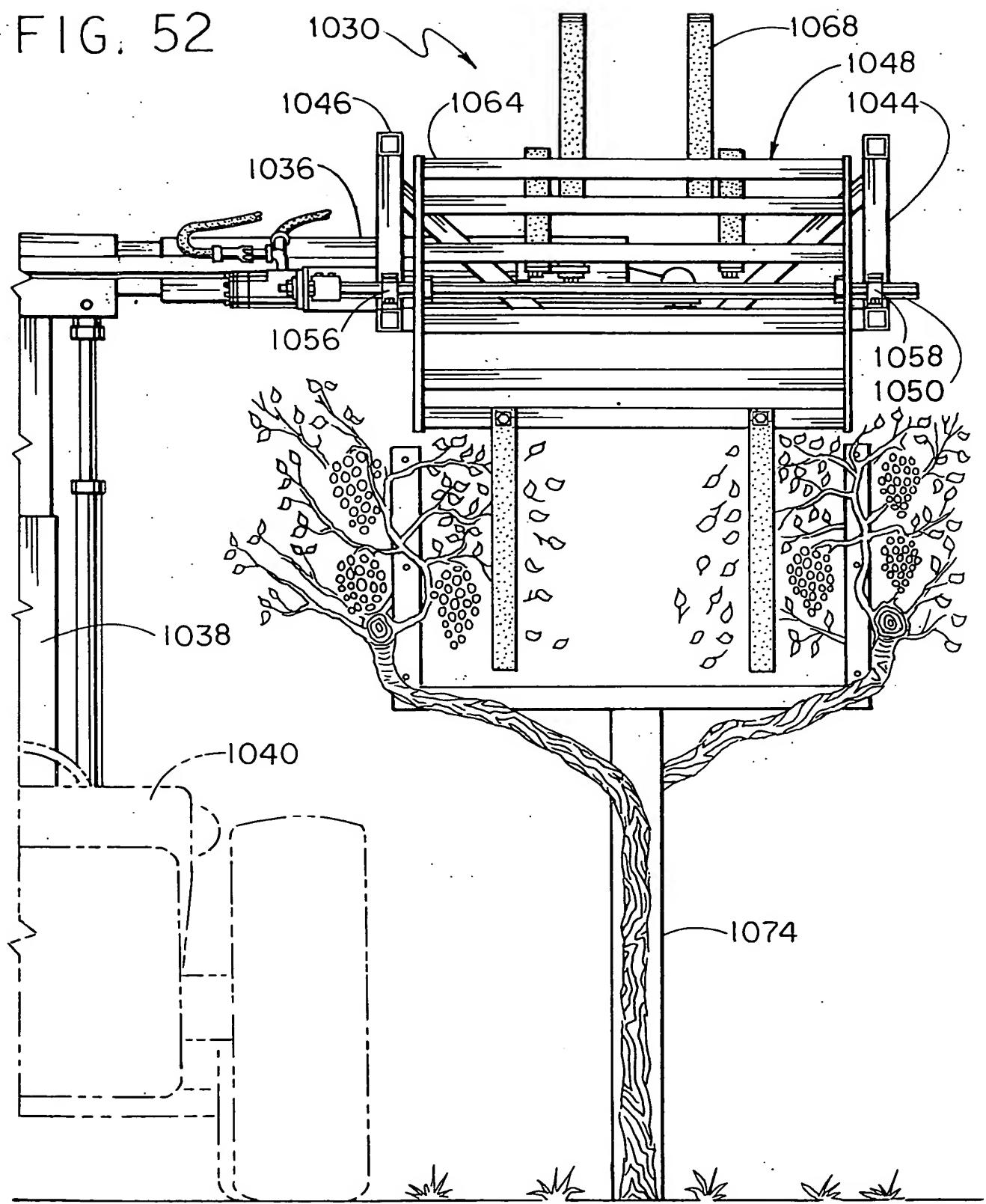


FIG. 53

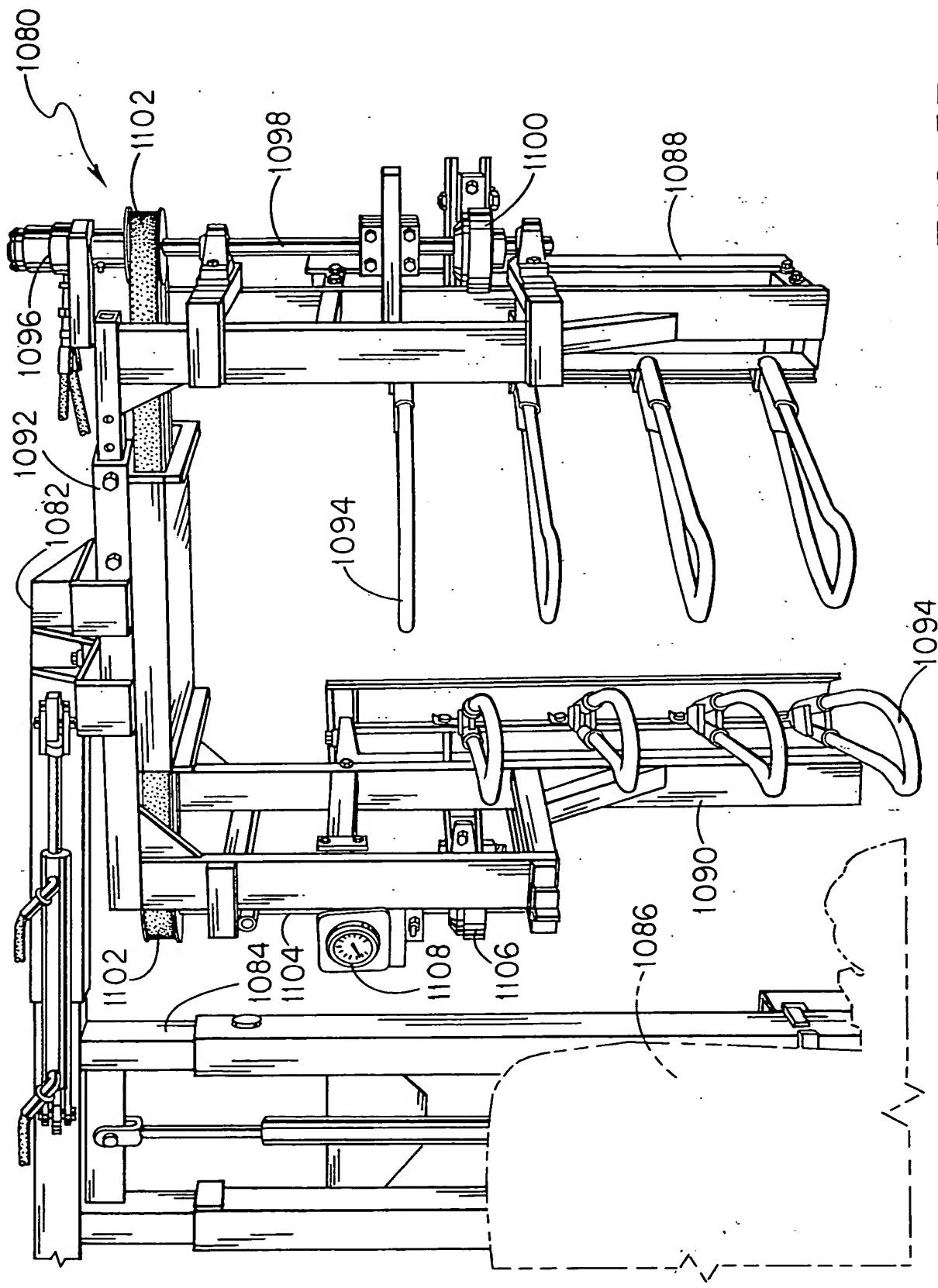
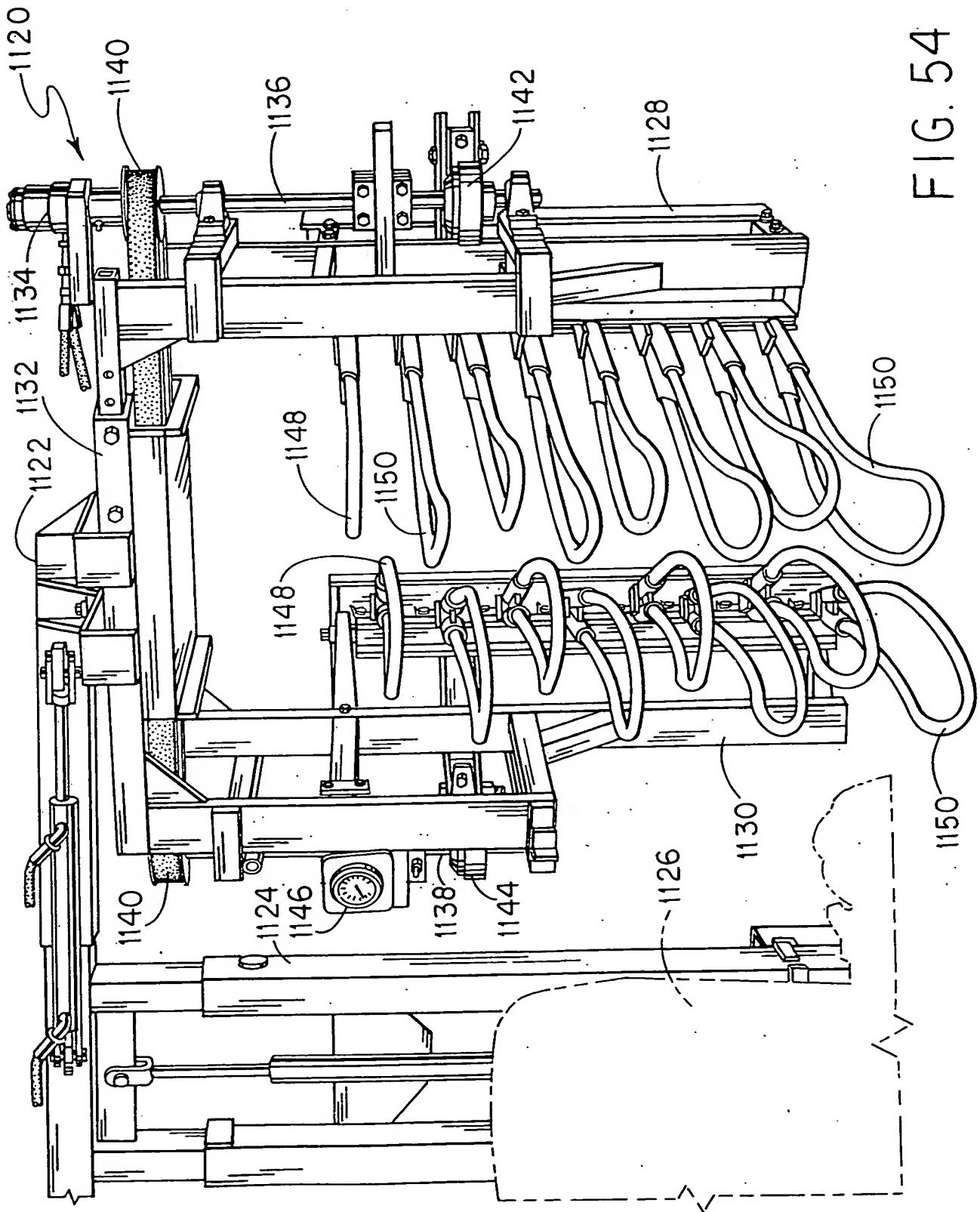


FIG. 54



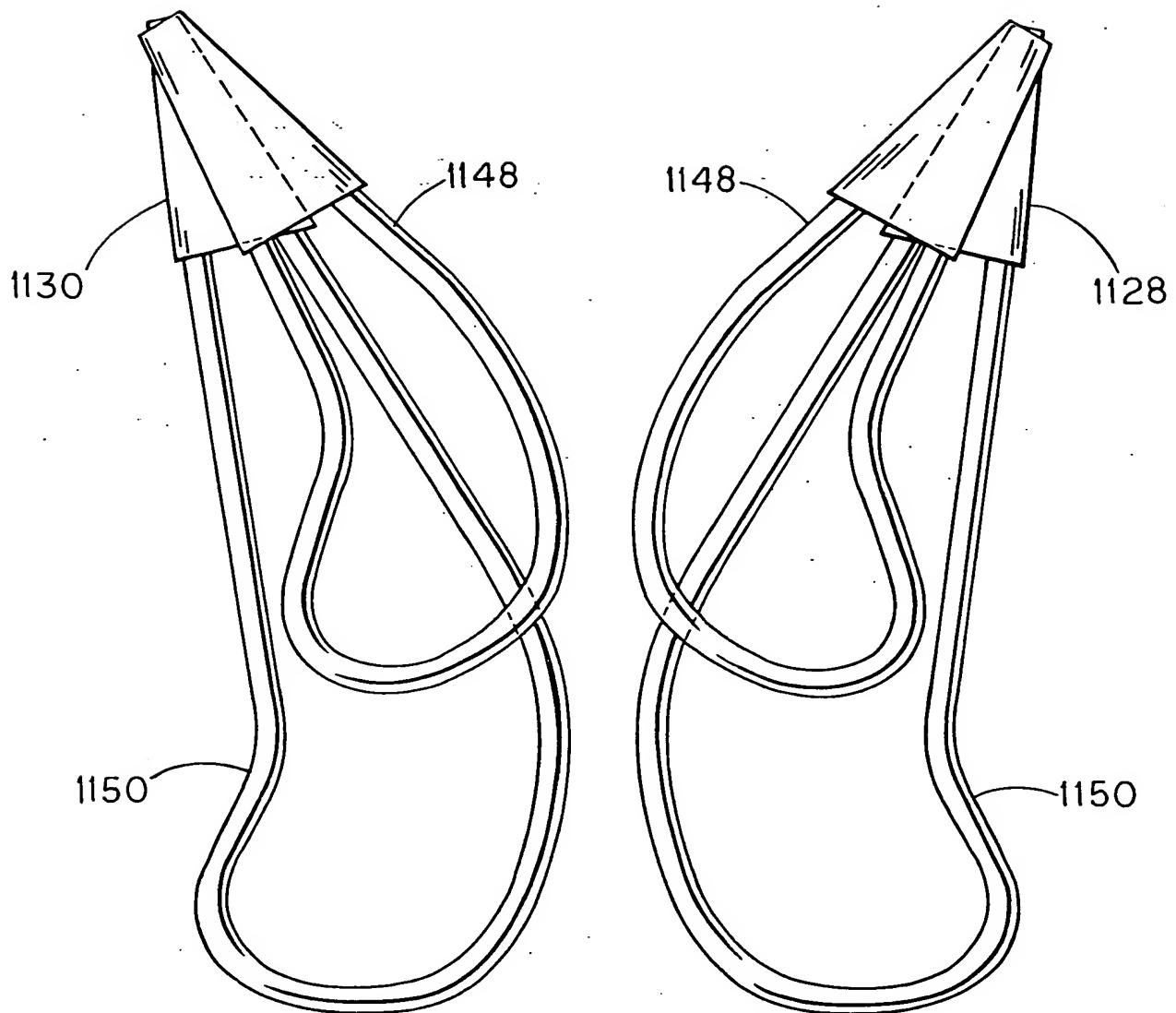


FIG. 55

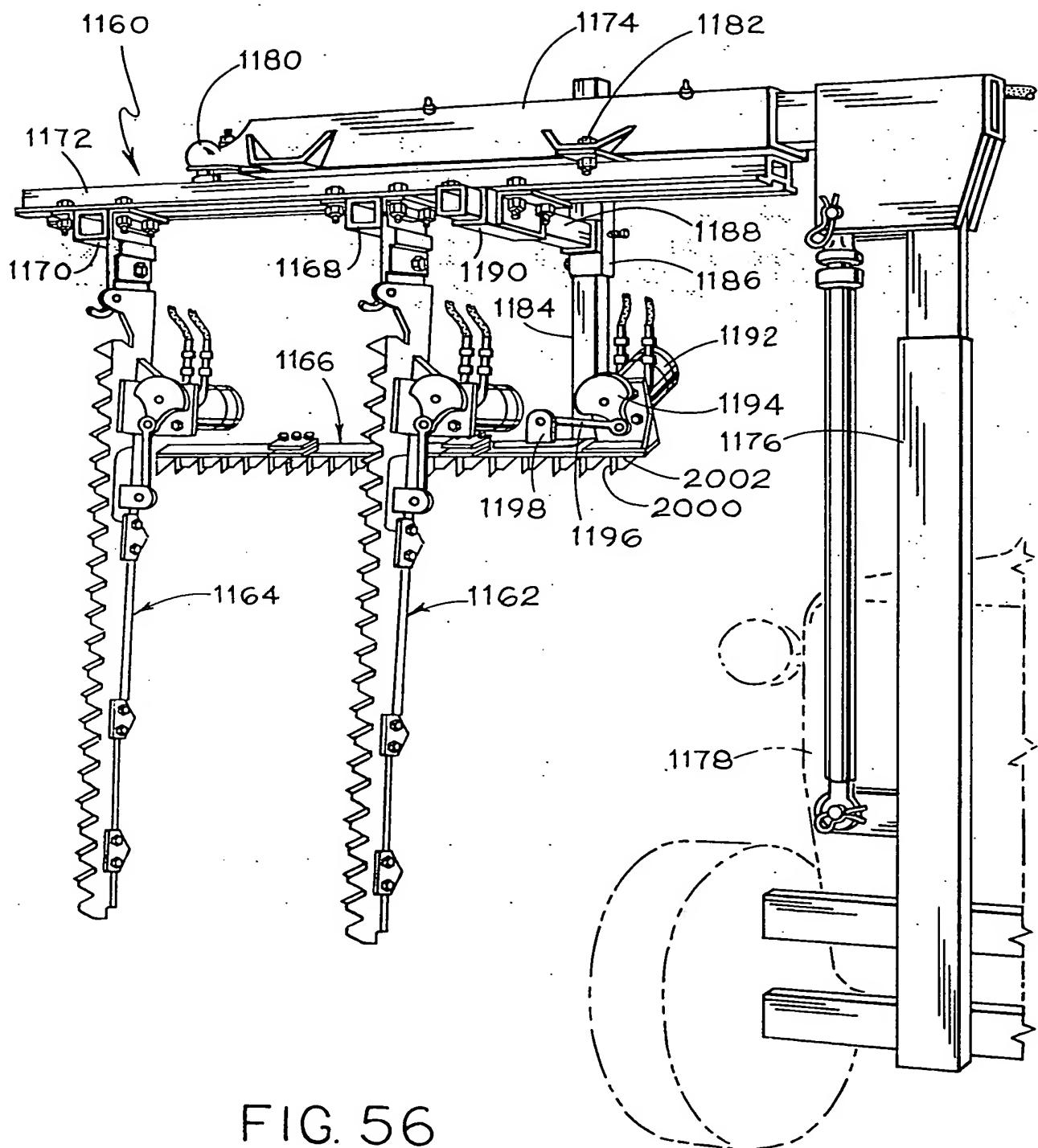


FIG. 56

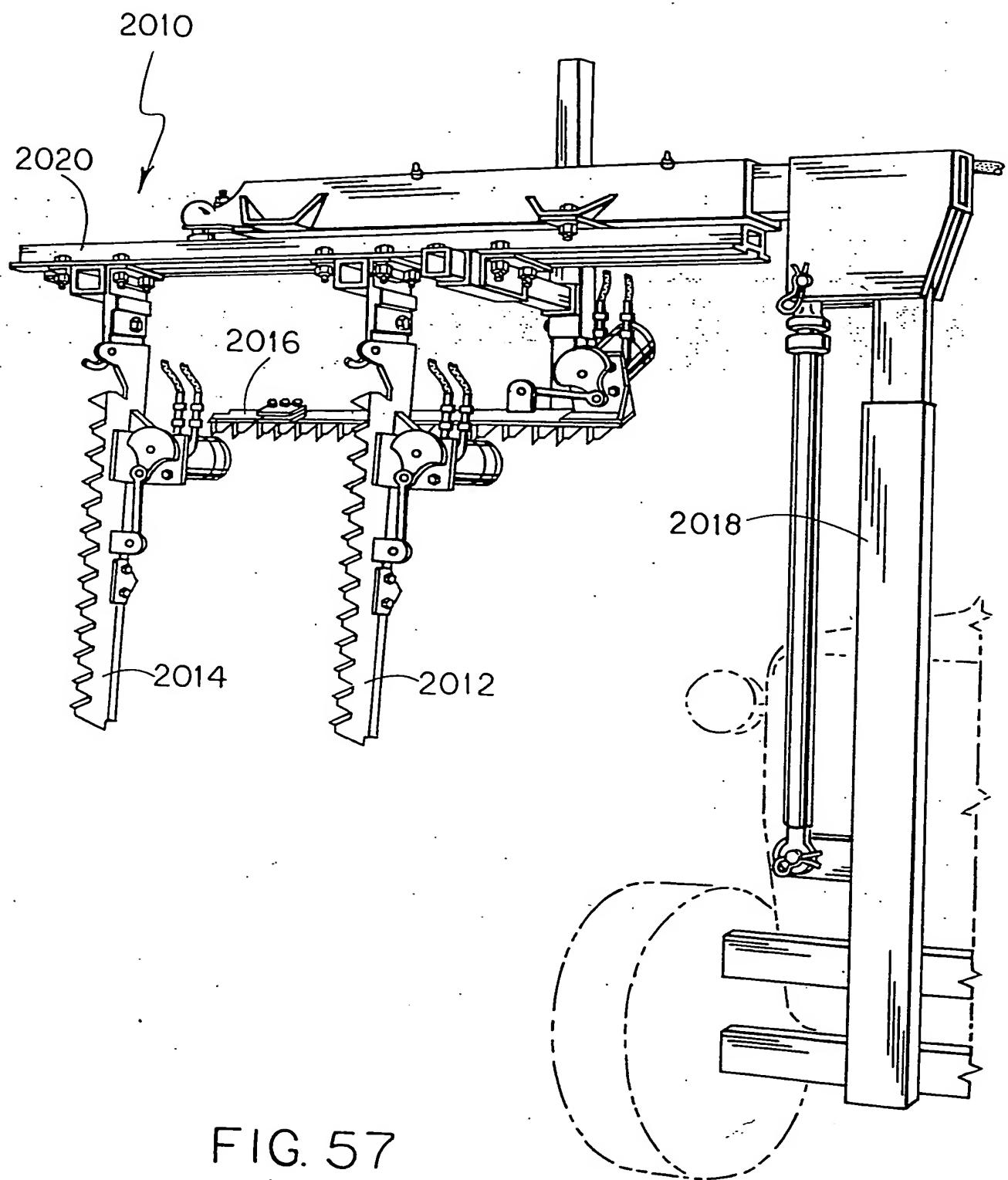


FIG. 57

203350 * 19791002

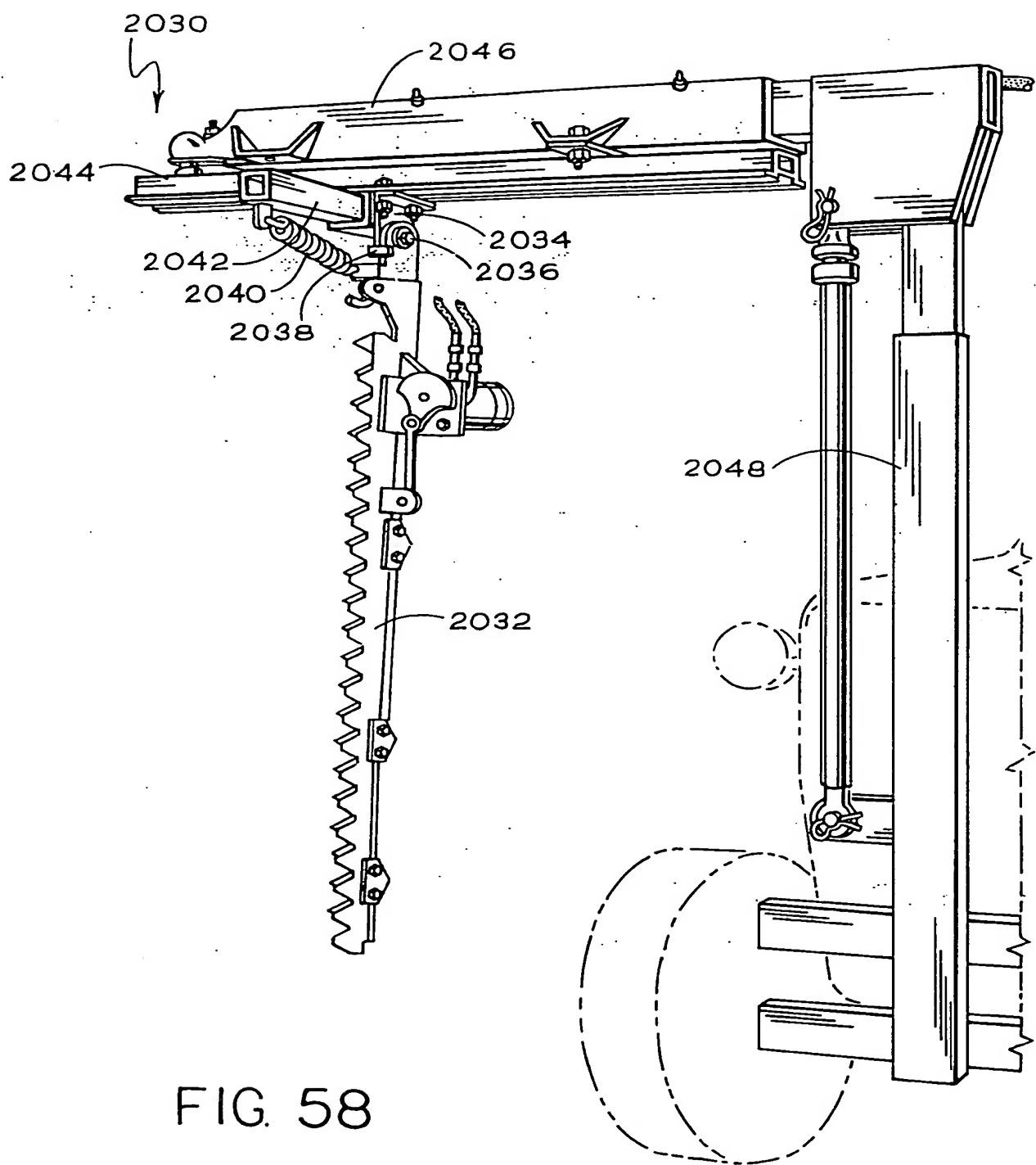


FIG. 58

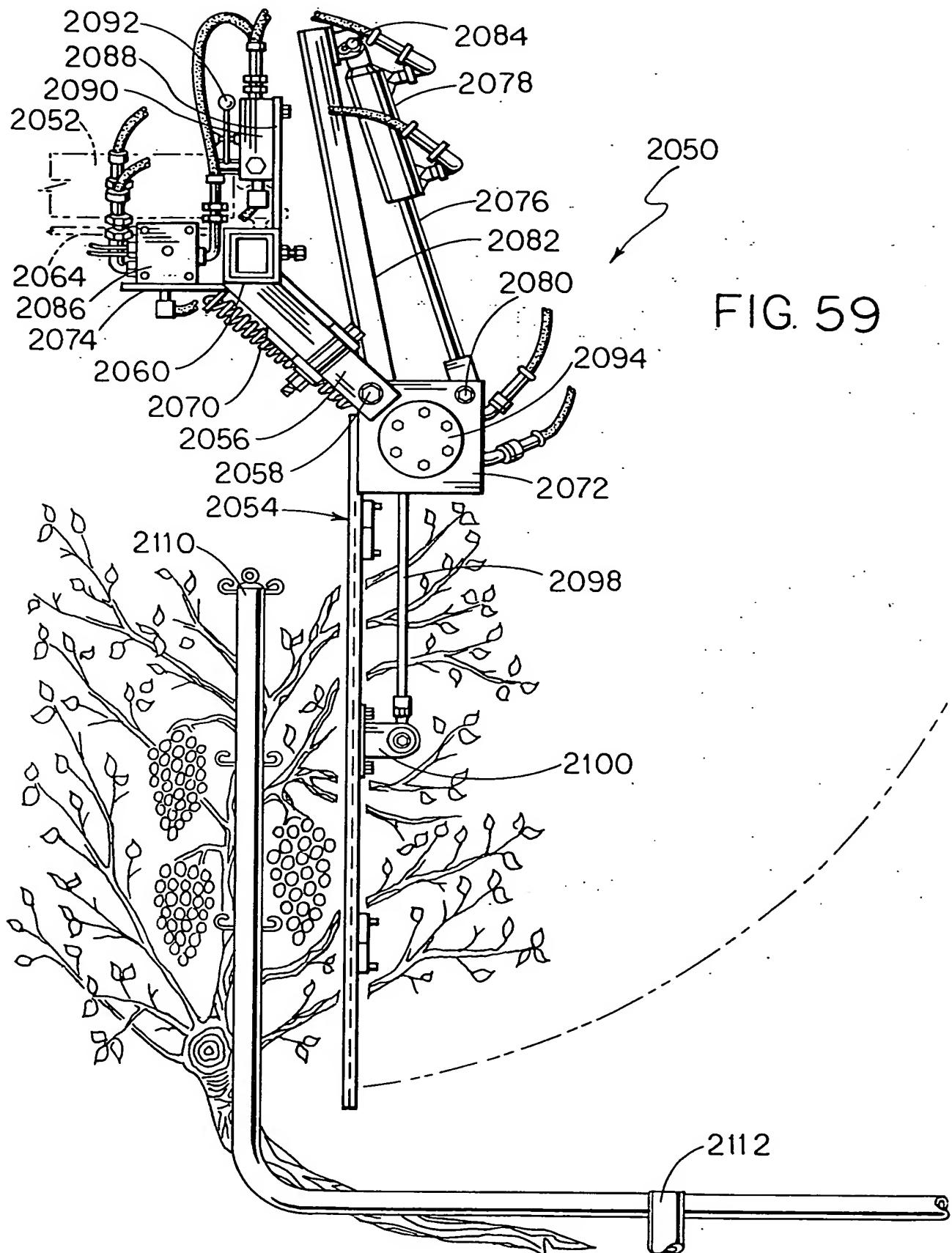


FIG. 60

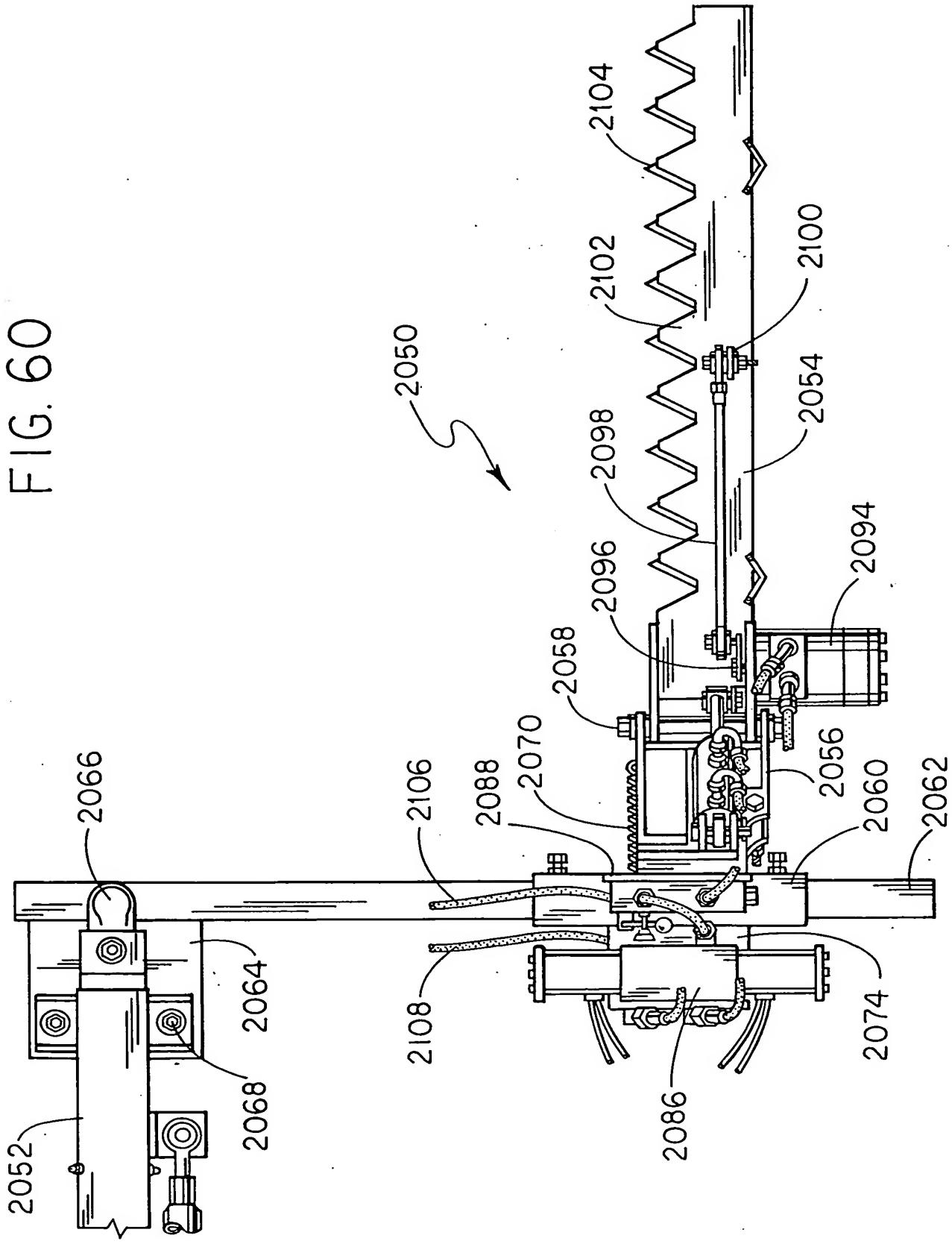


FIG. 61

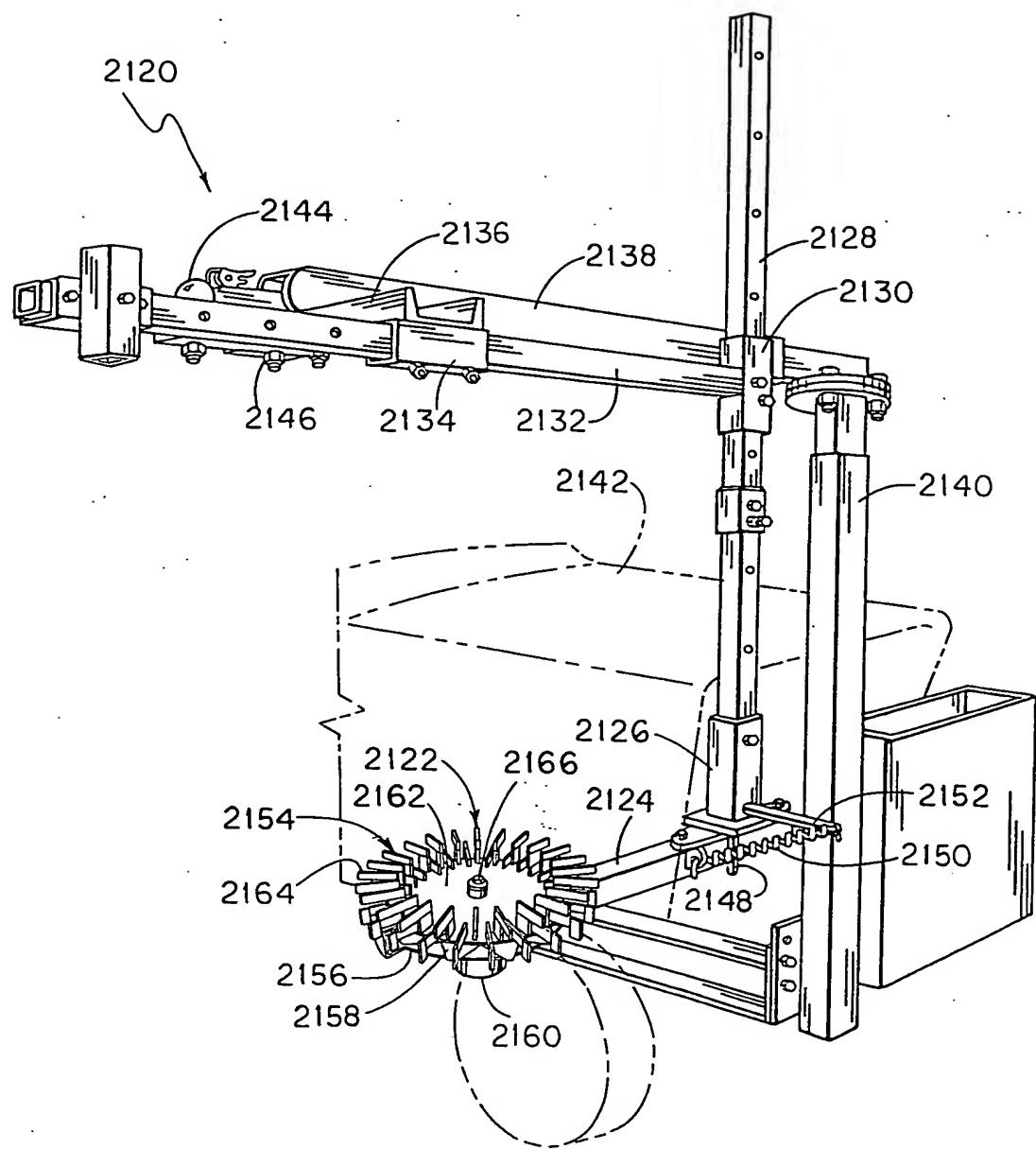


FIG. 62

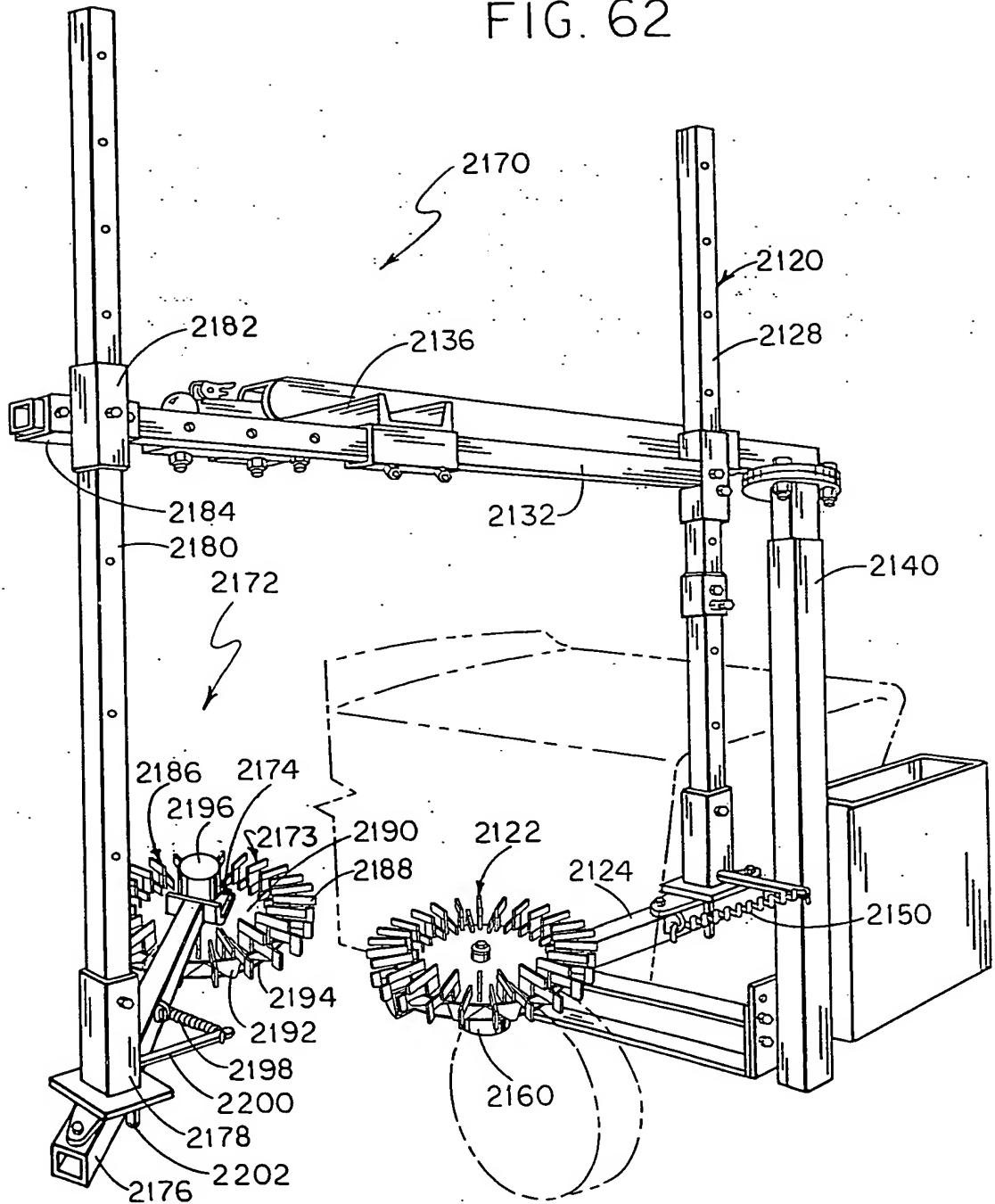
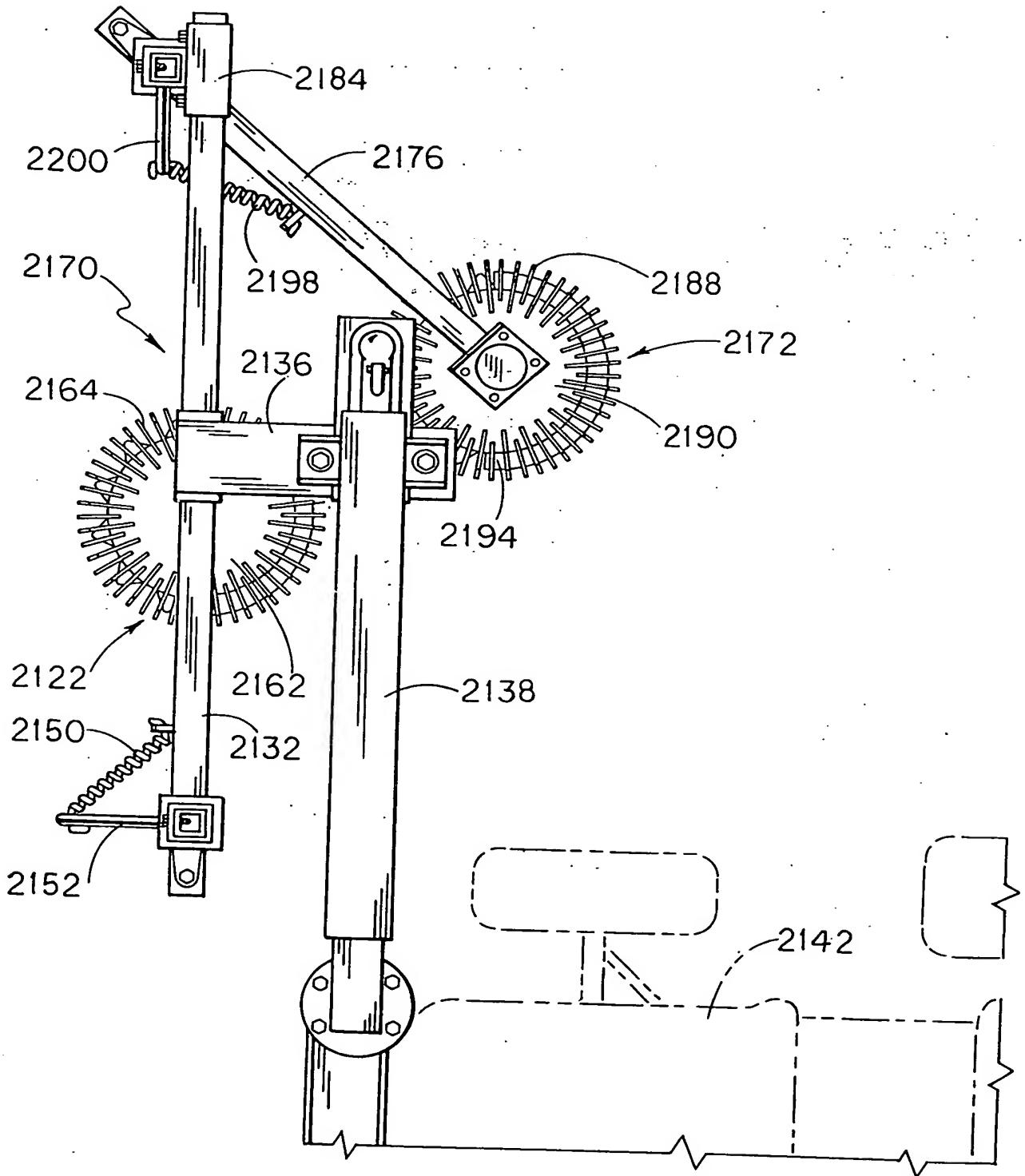


FIG. 63



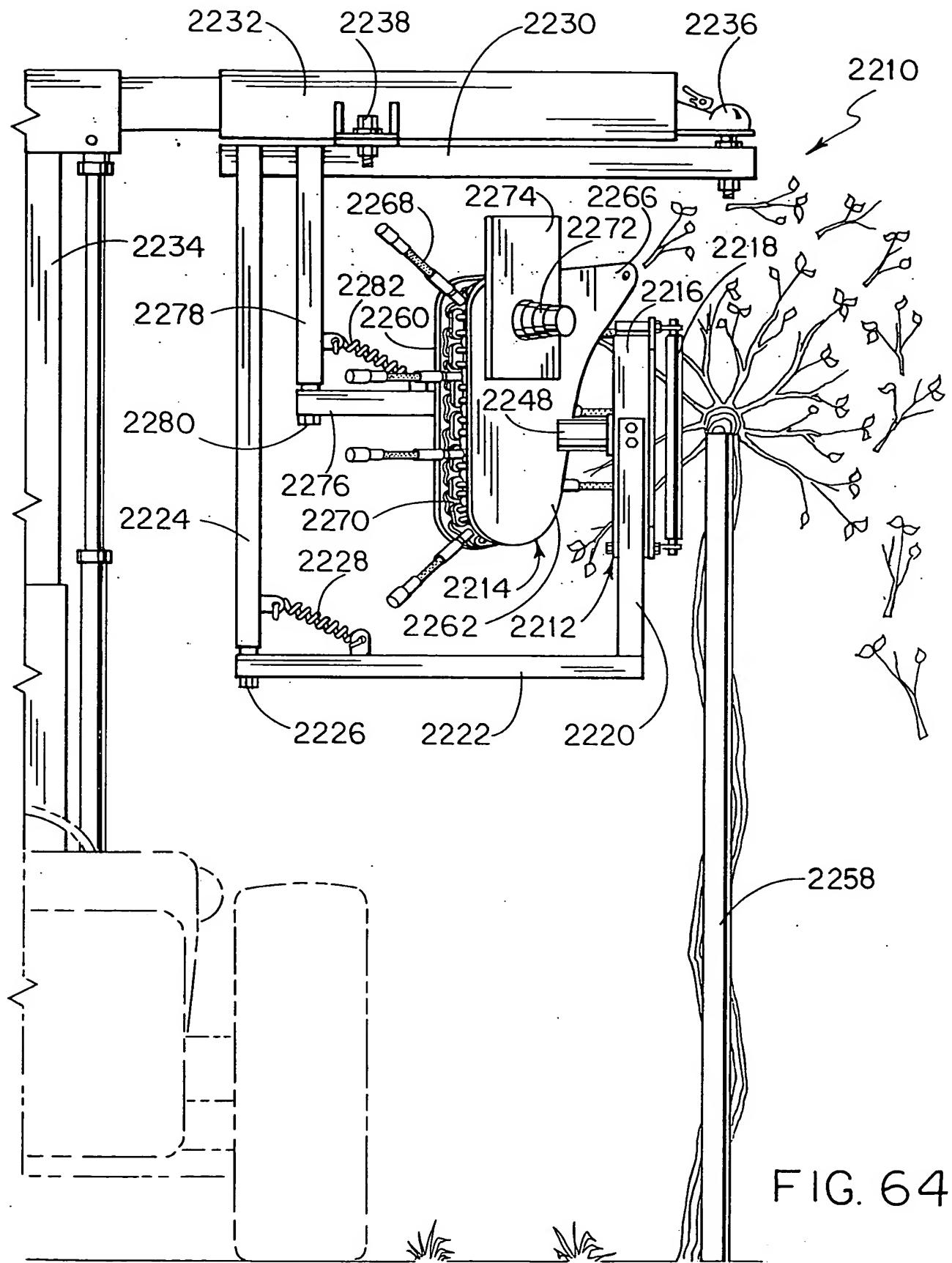
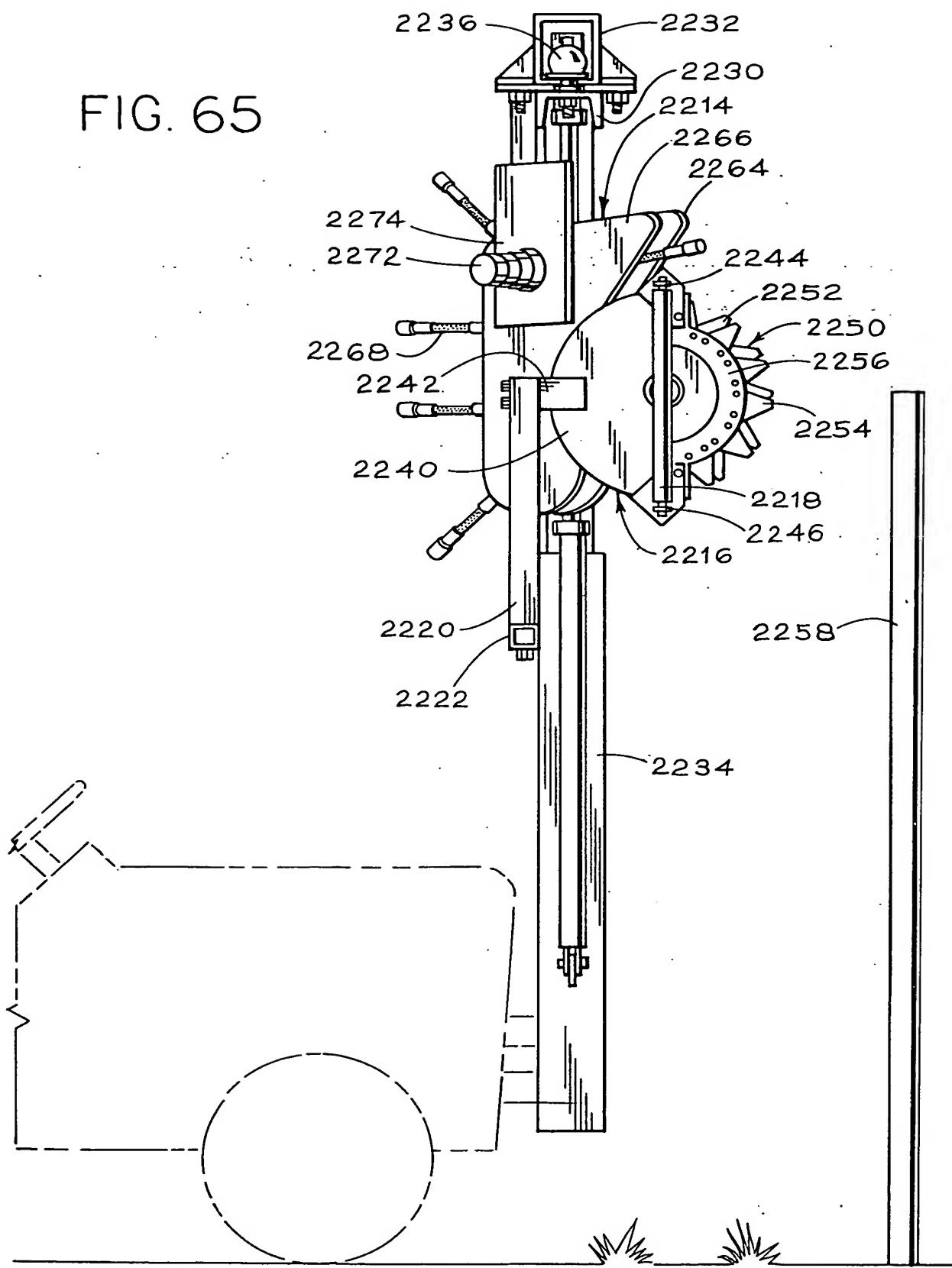


FIG. 65



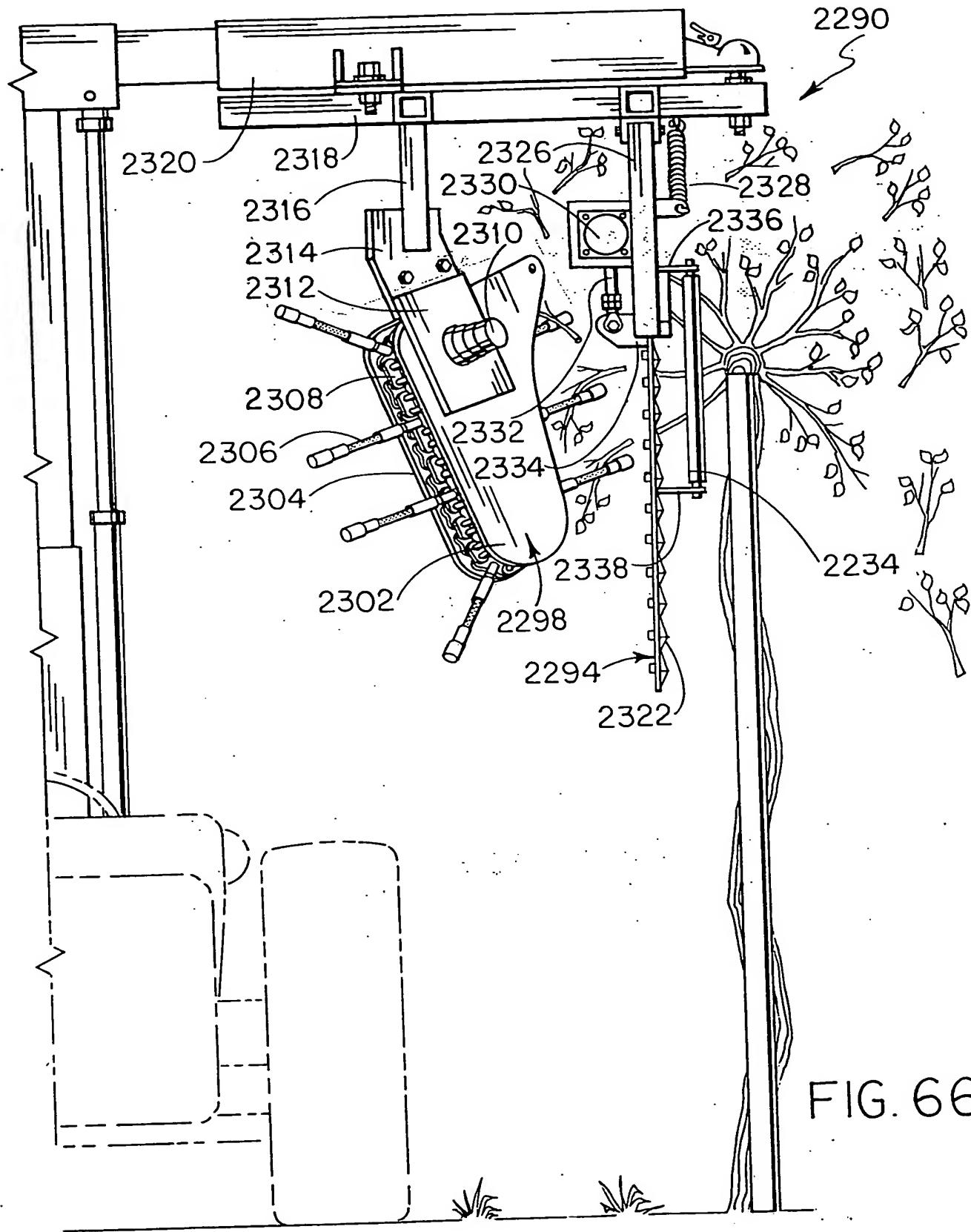


FIG. 68

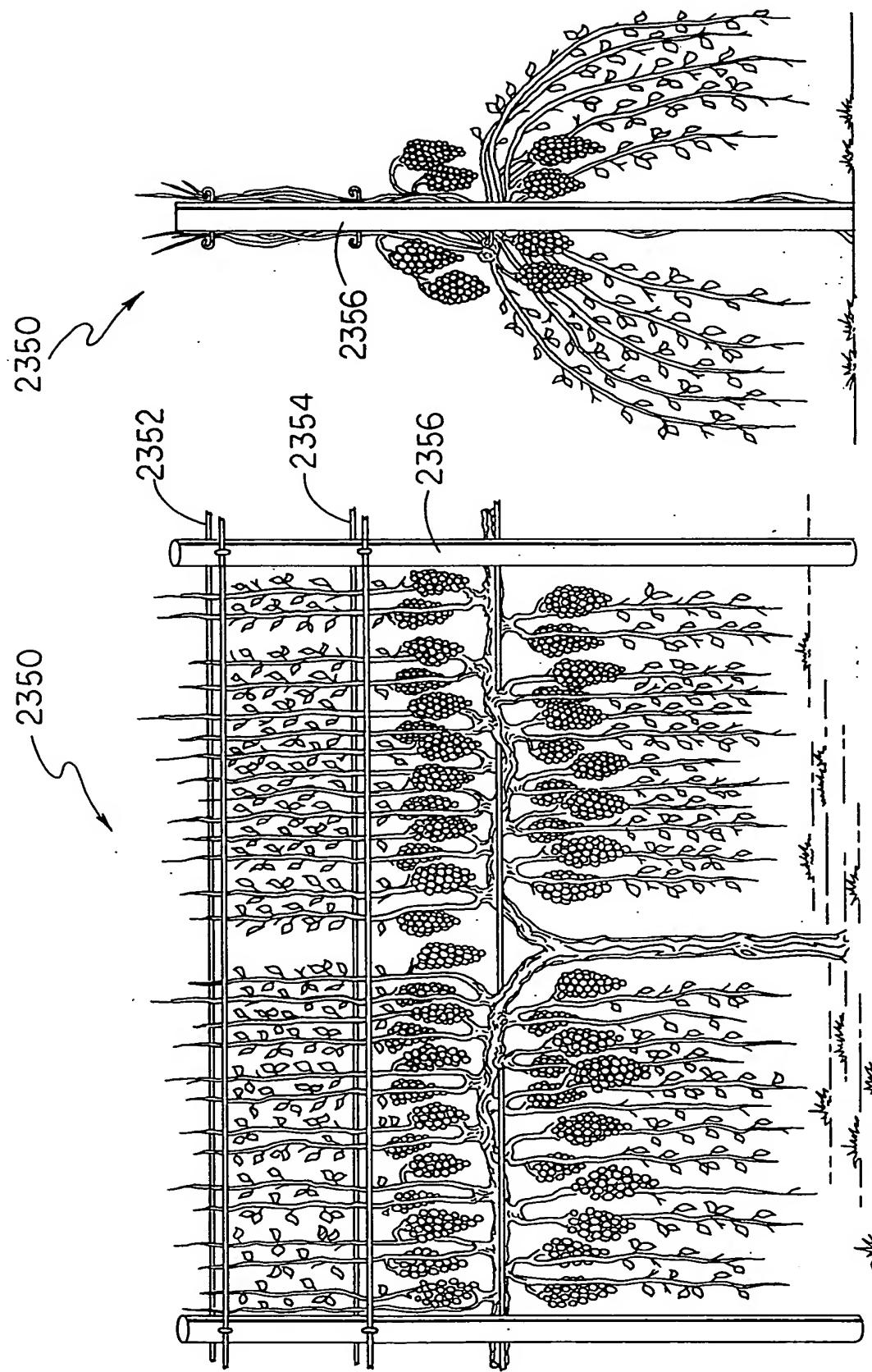


FIG. 67

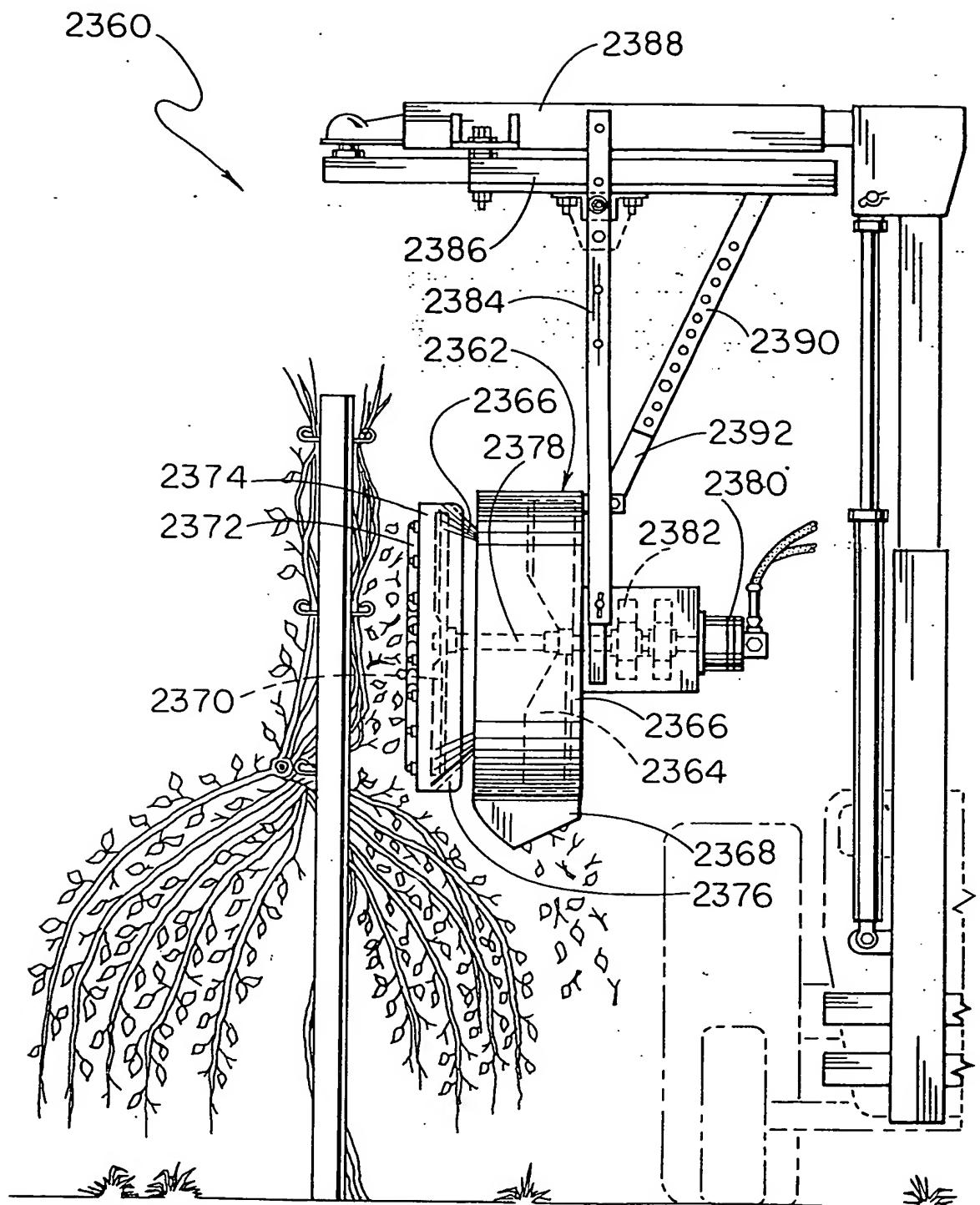


FIG. 69

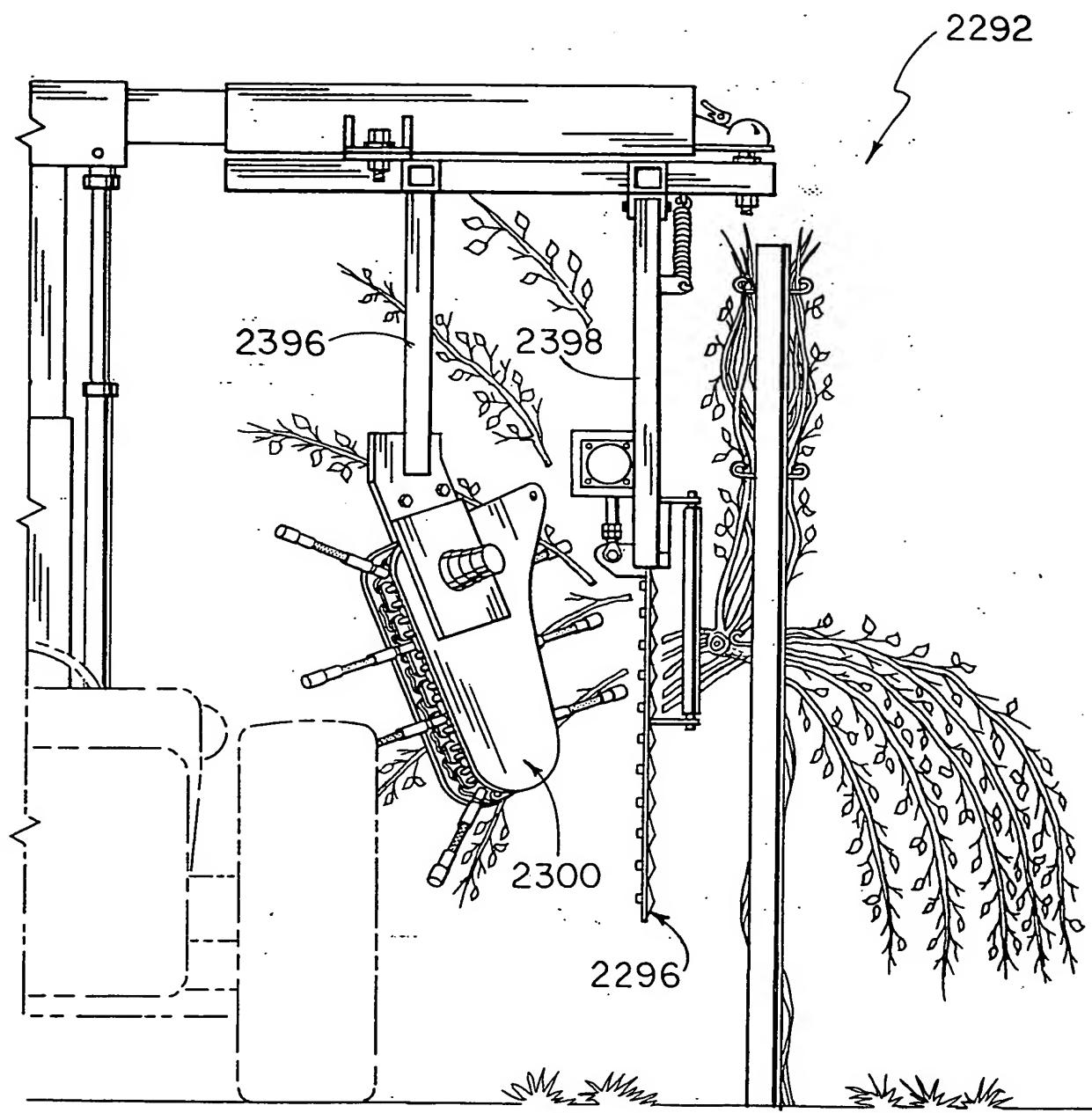


FIG. 70

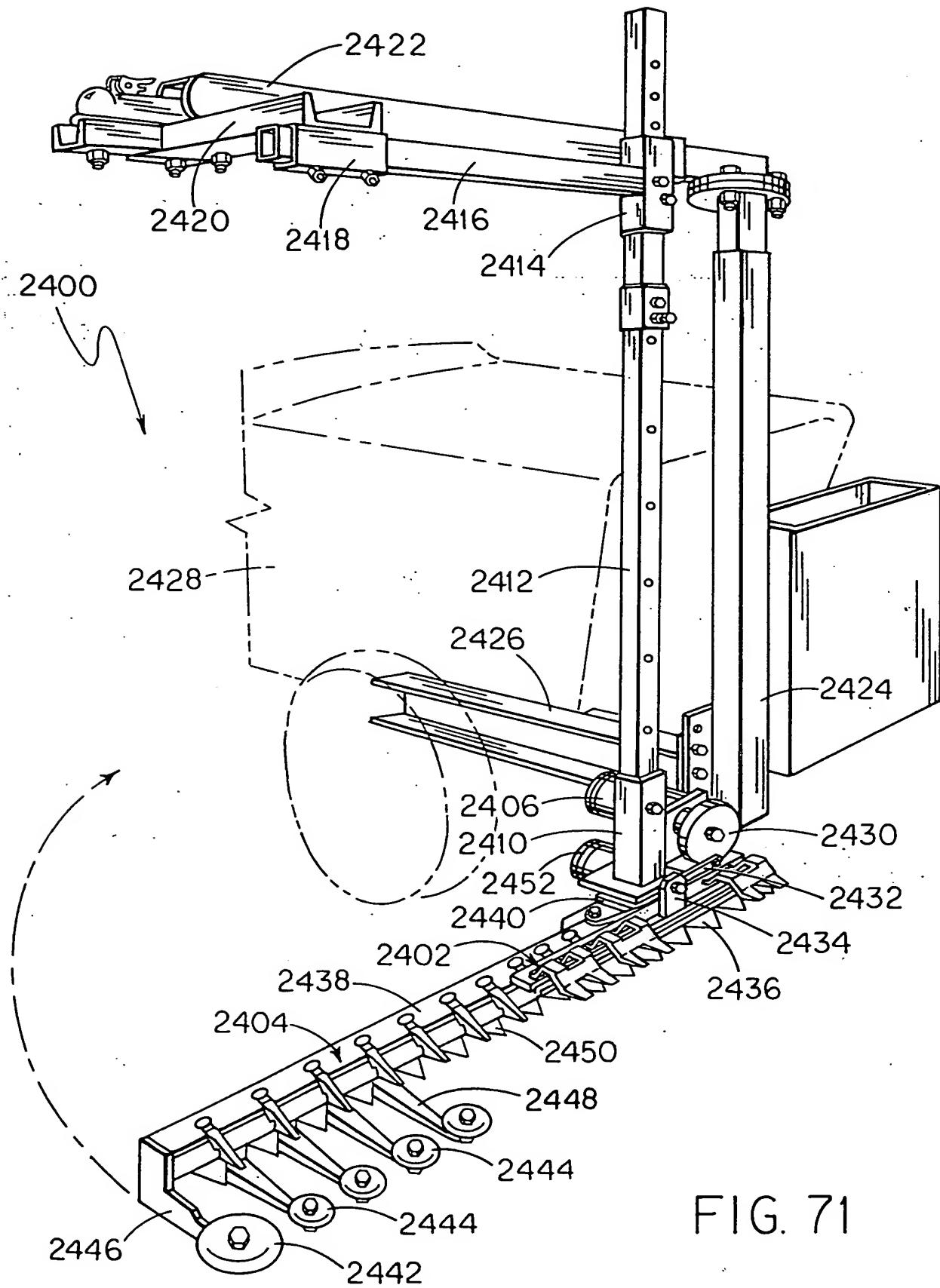


FIG. 71

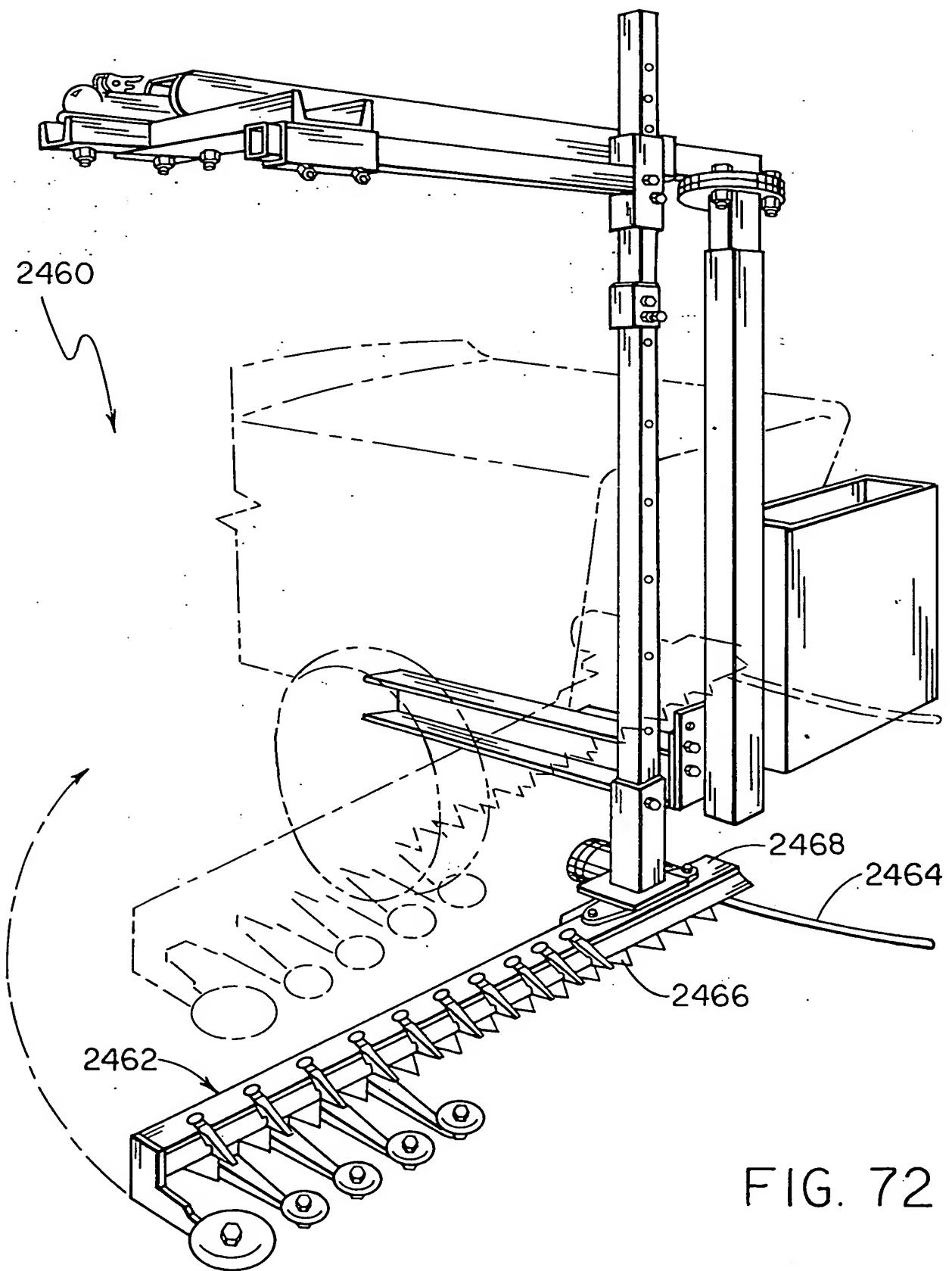
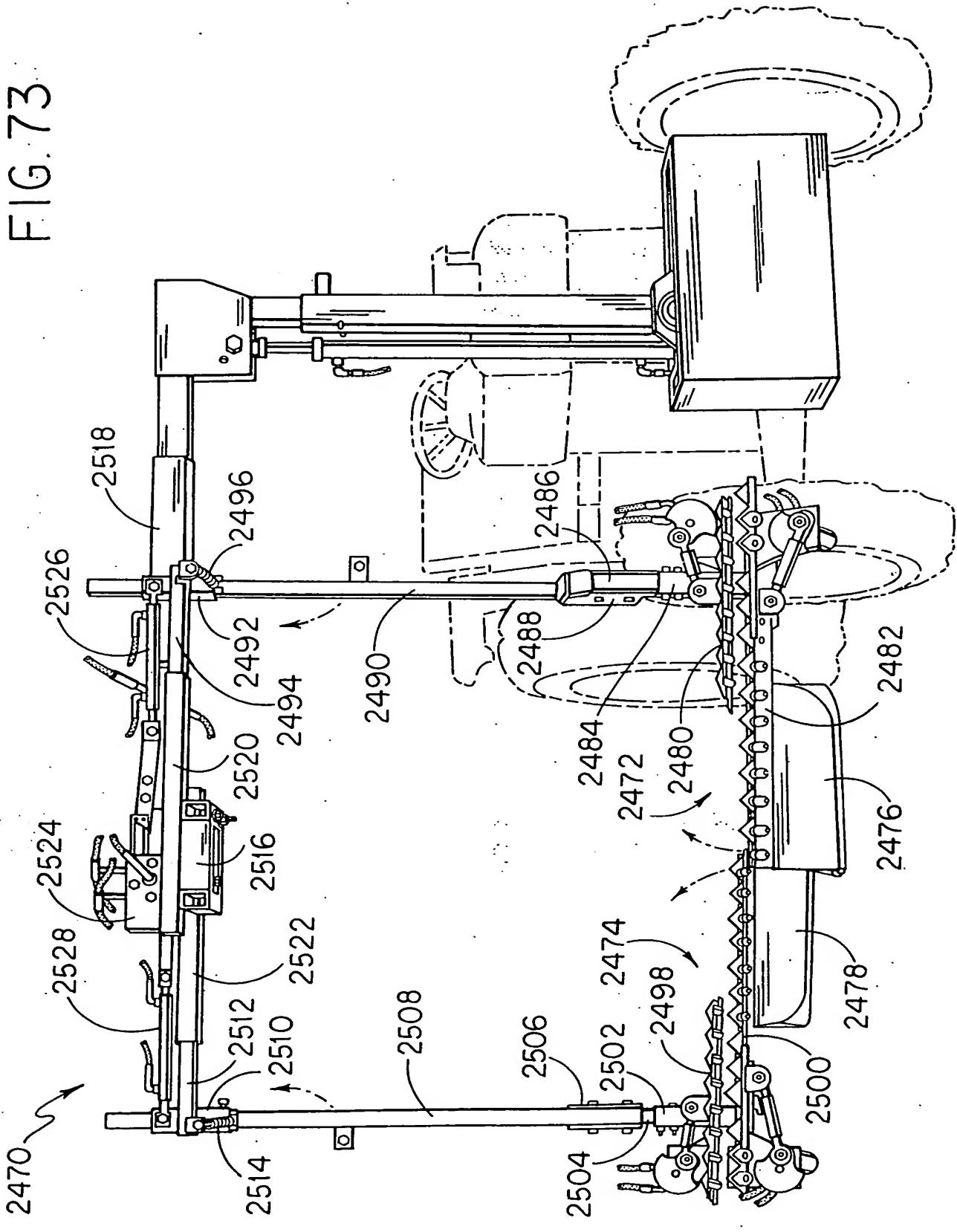


FIG. 72

FIG. 73



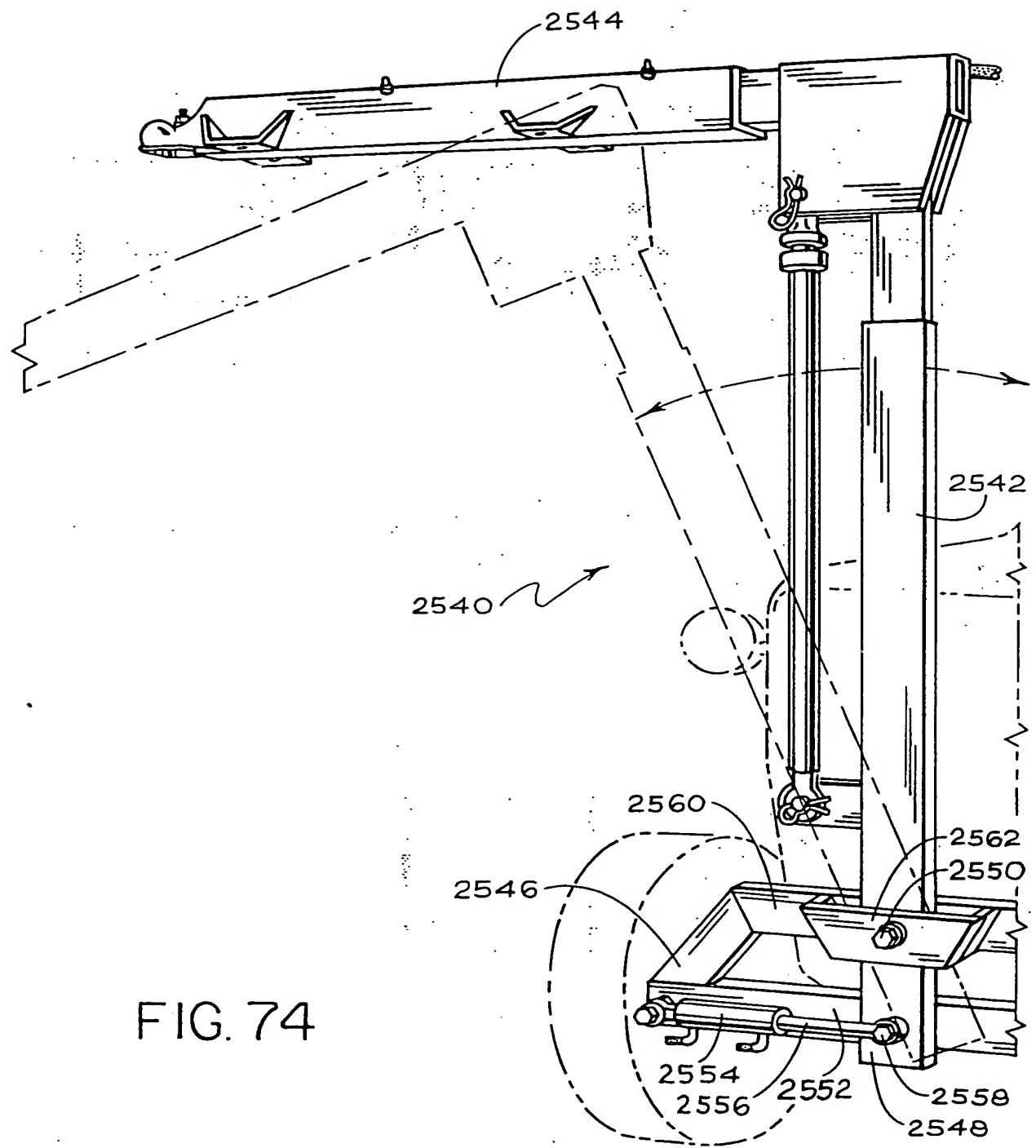
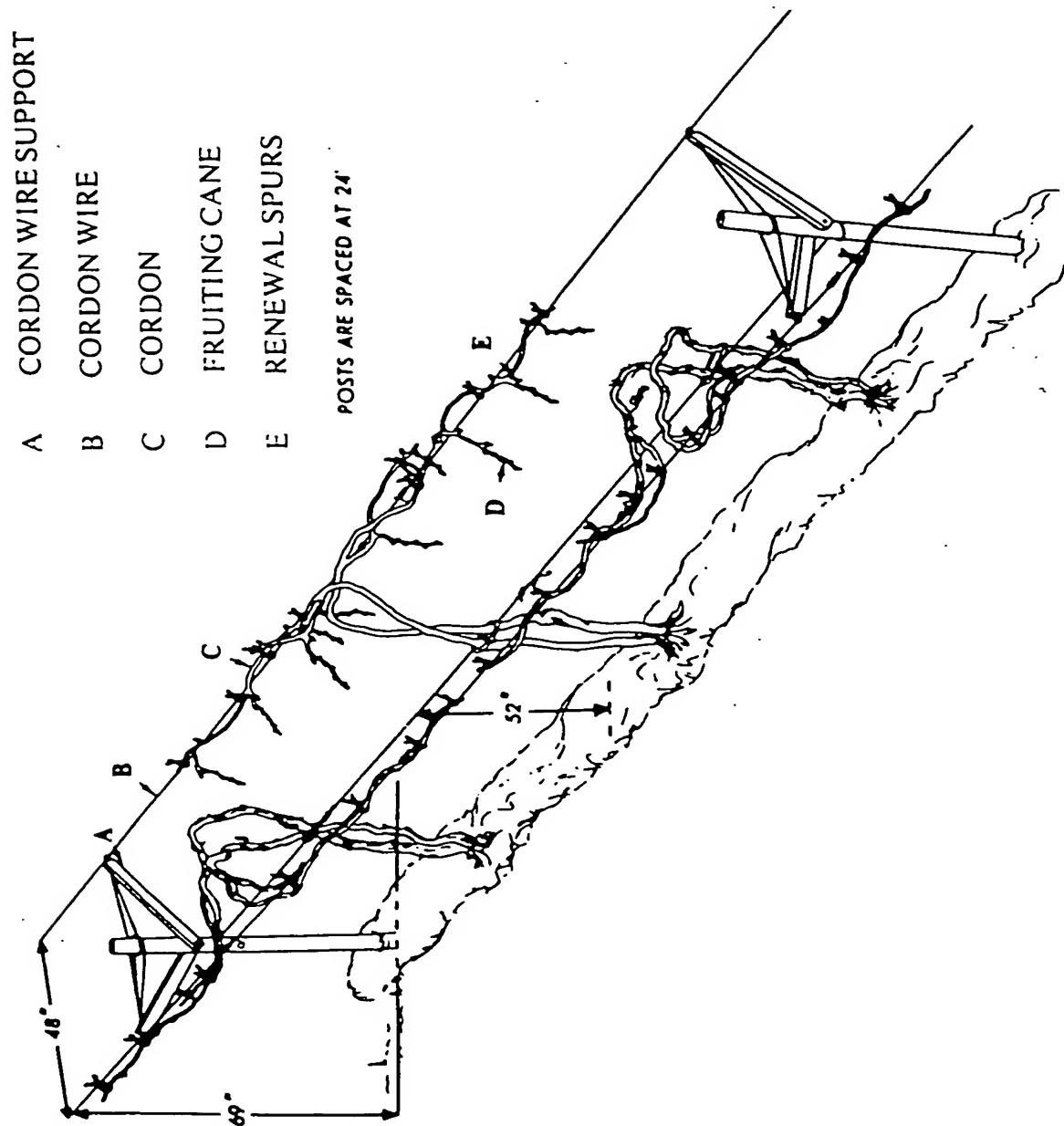
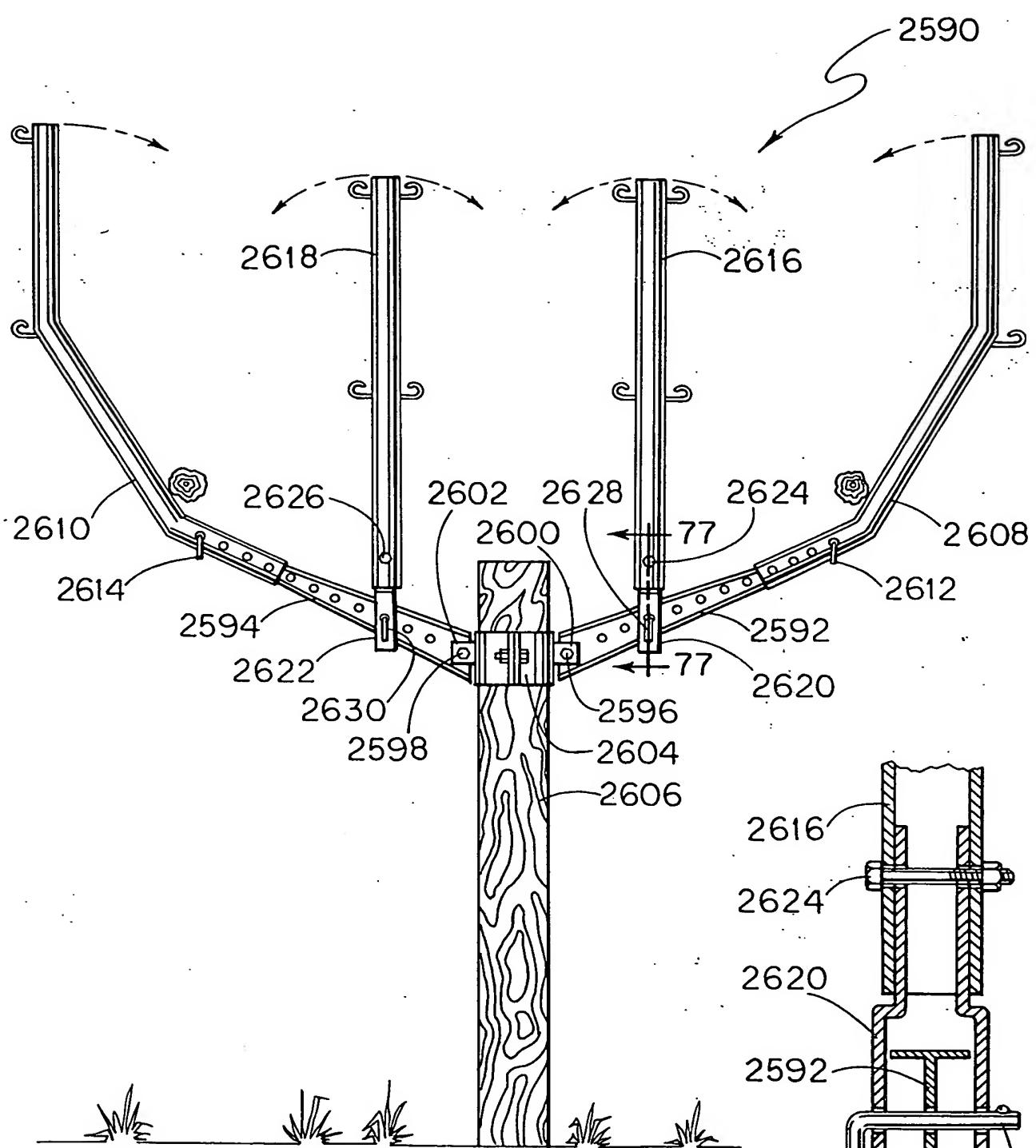


FIG. 74

FIG. 75





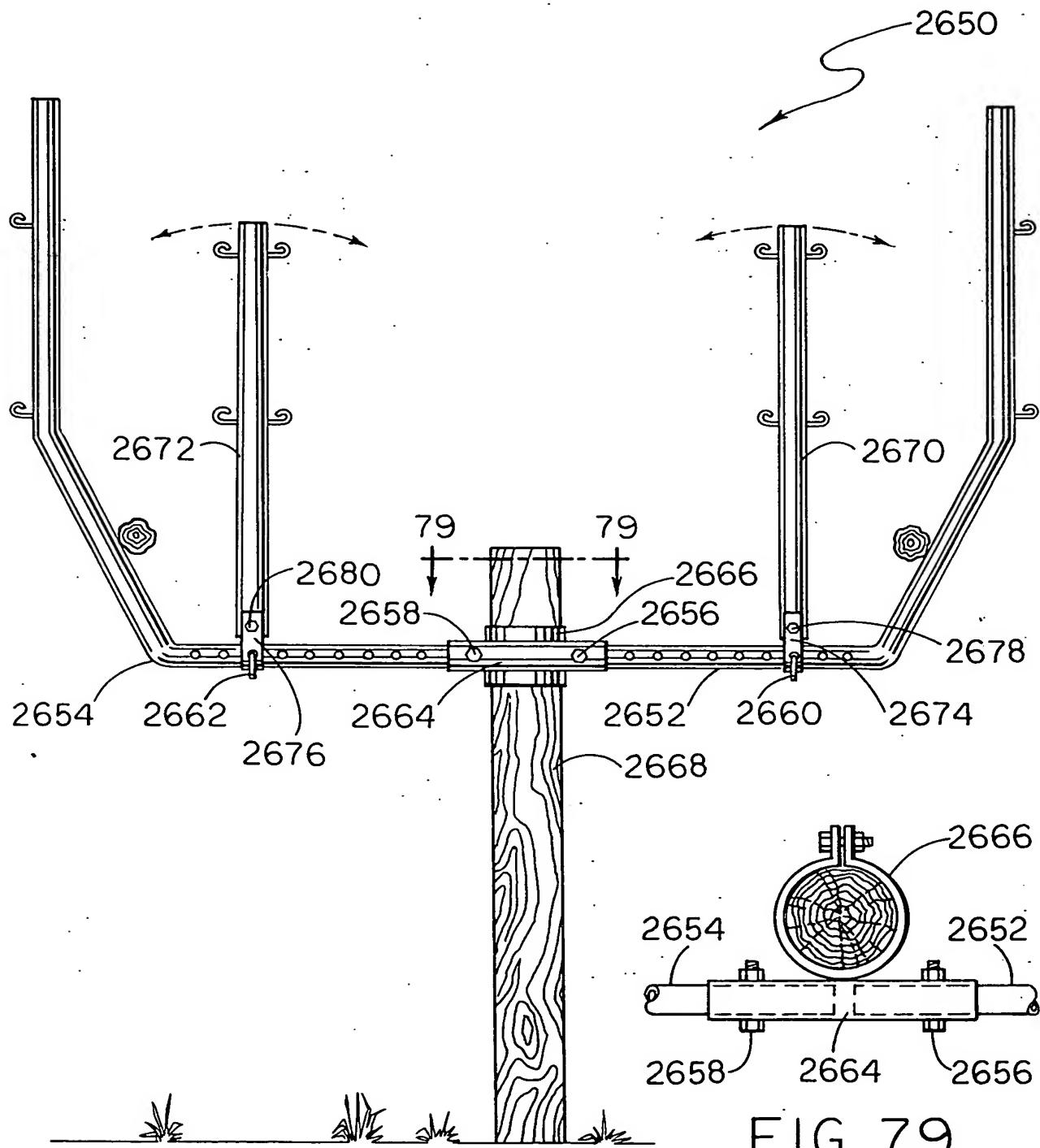


FIG. 78

FIG. 79

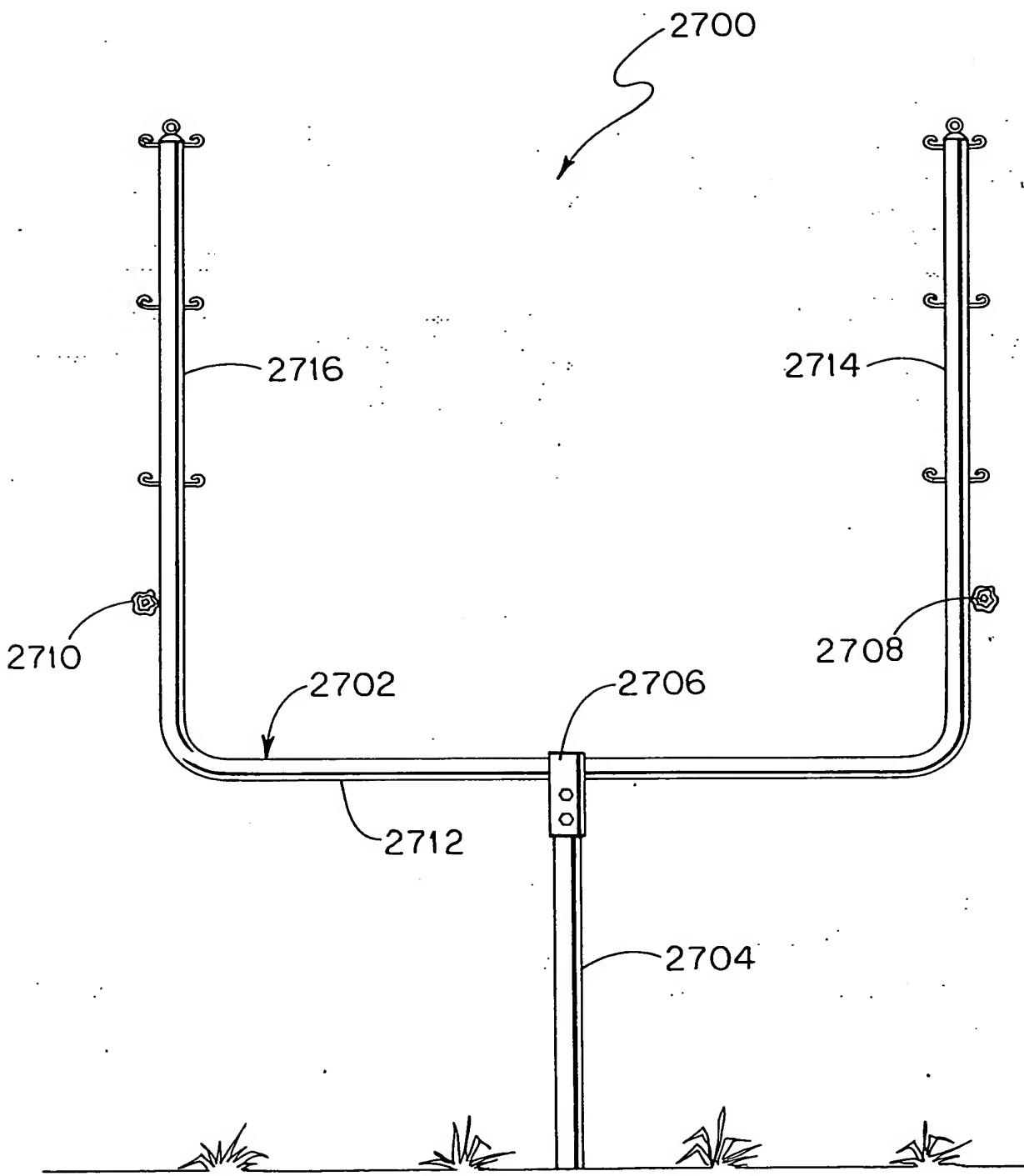


FIG. 80

FIG. 81

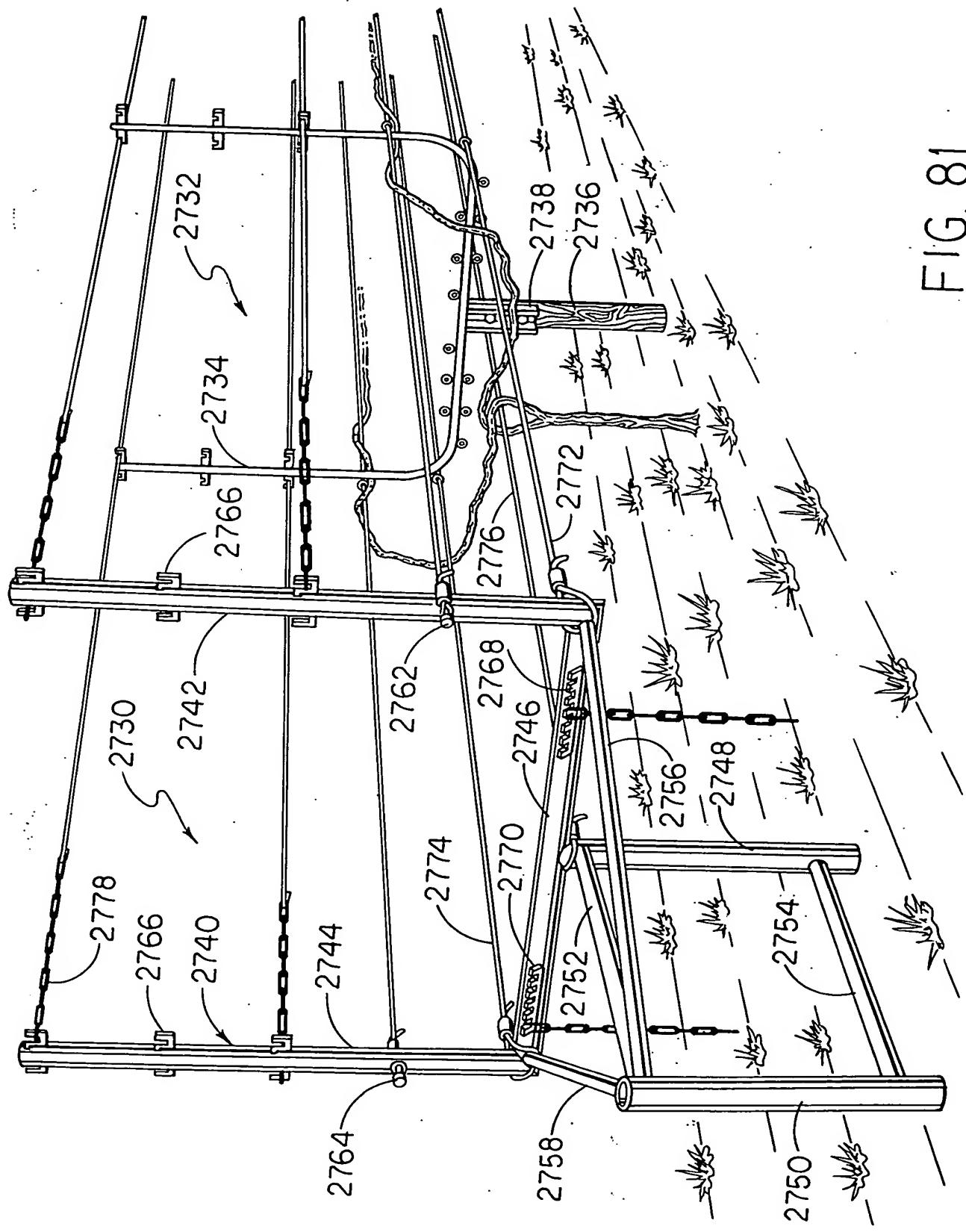
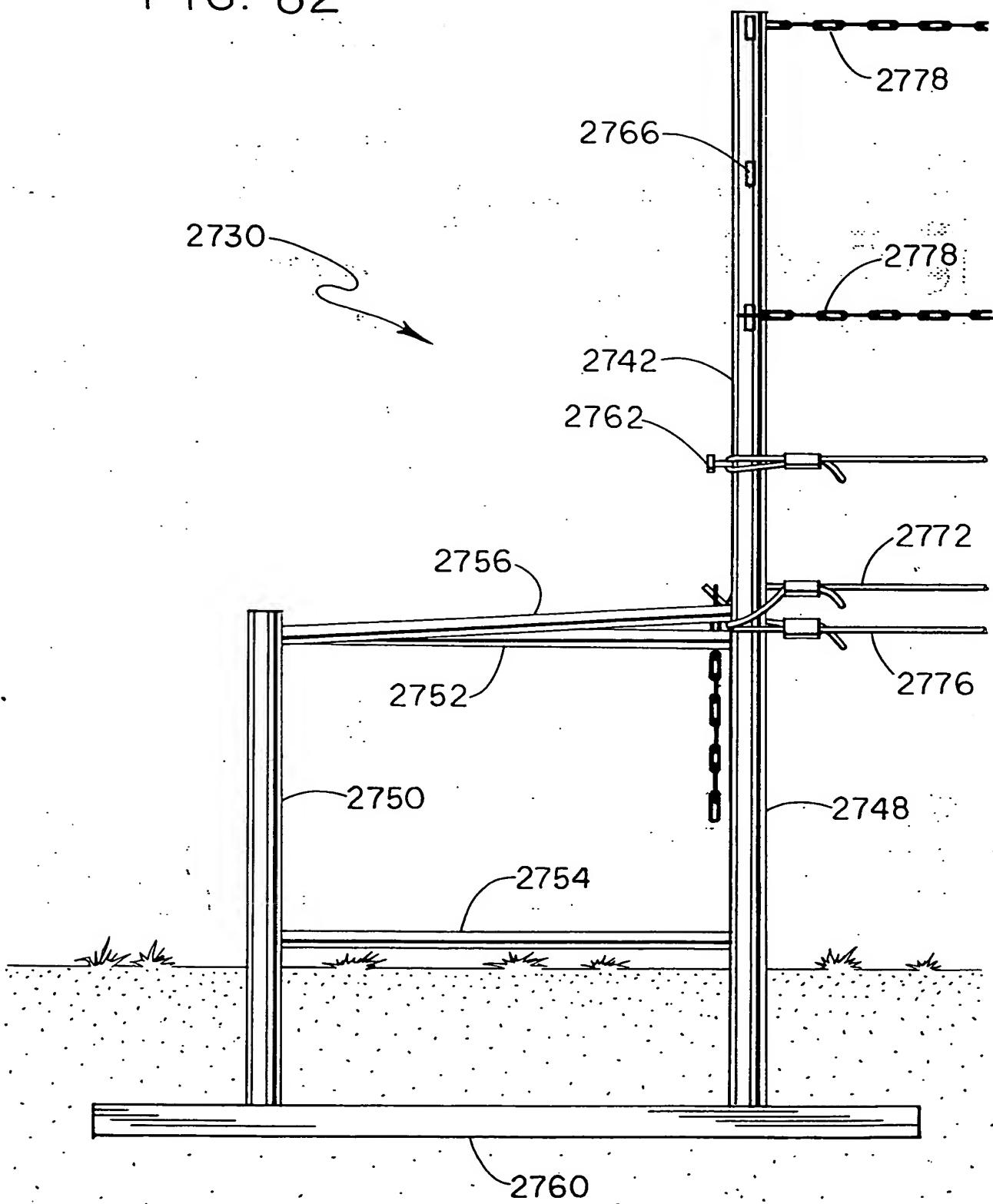


FIG. 82



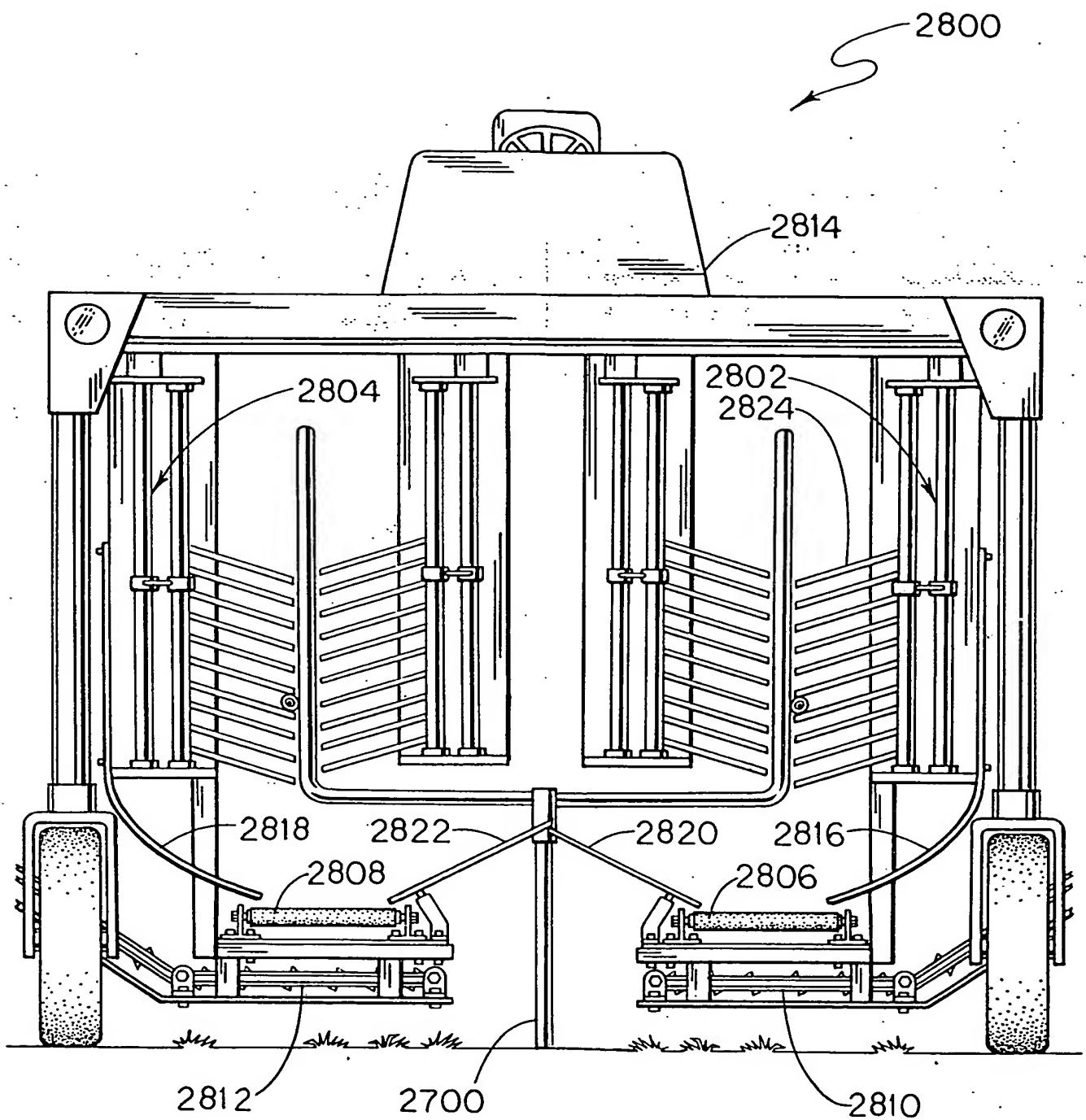


FIG. 83

FIG. 84

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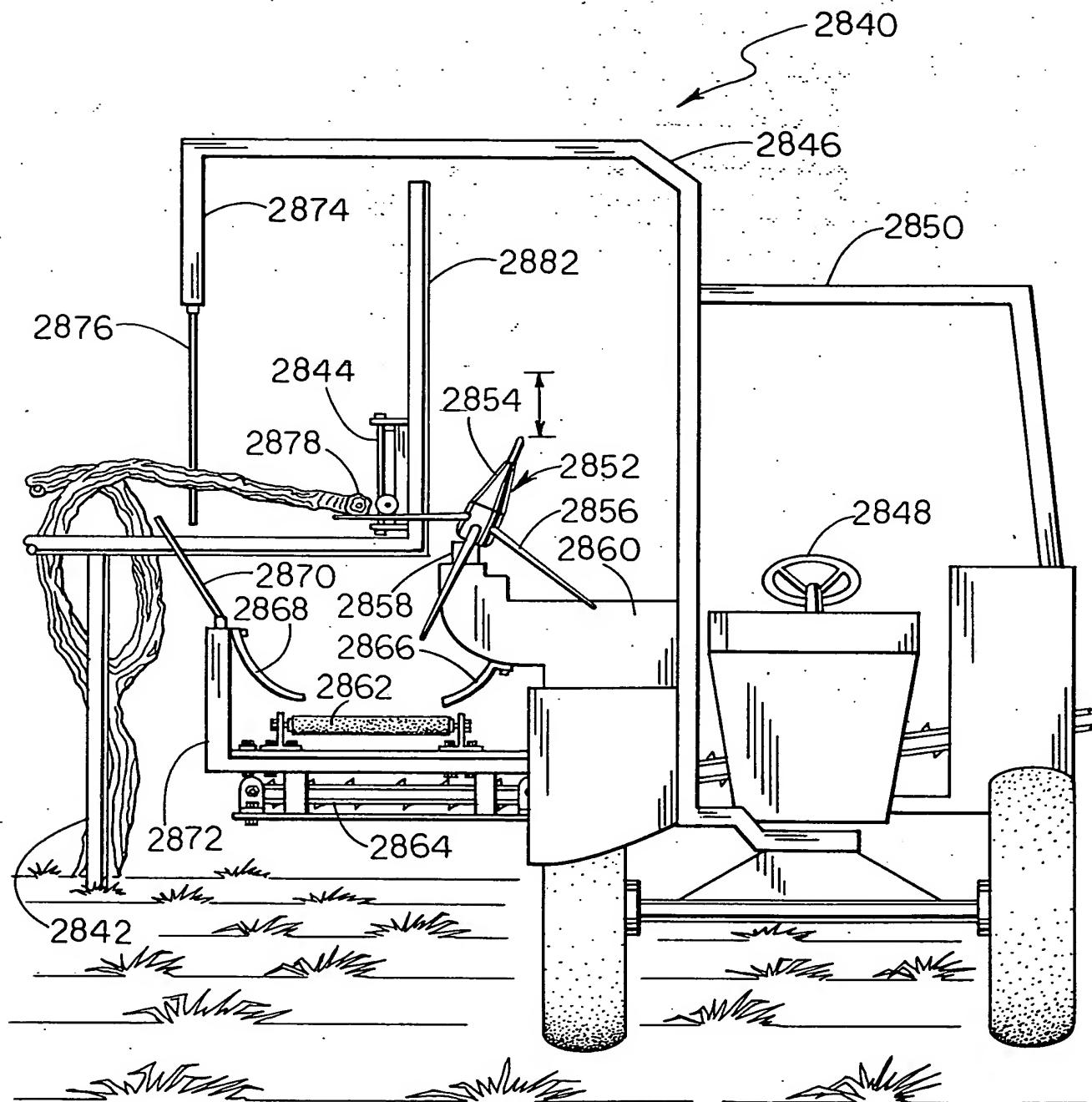


FIG. 84A

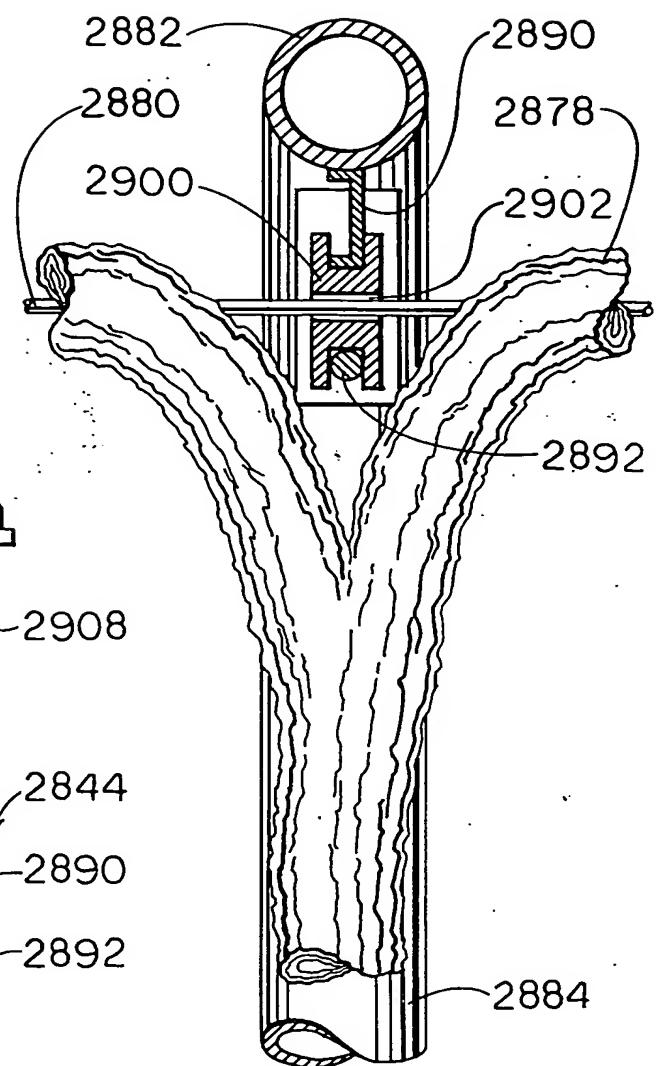
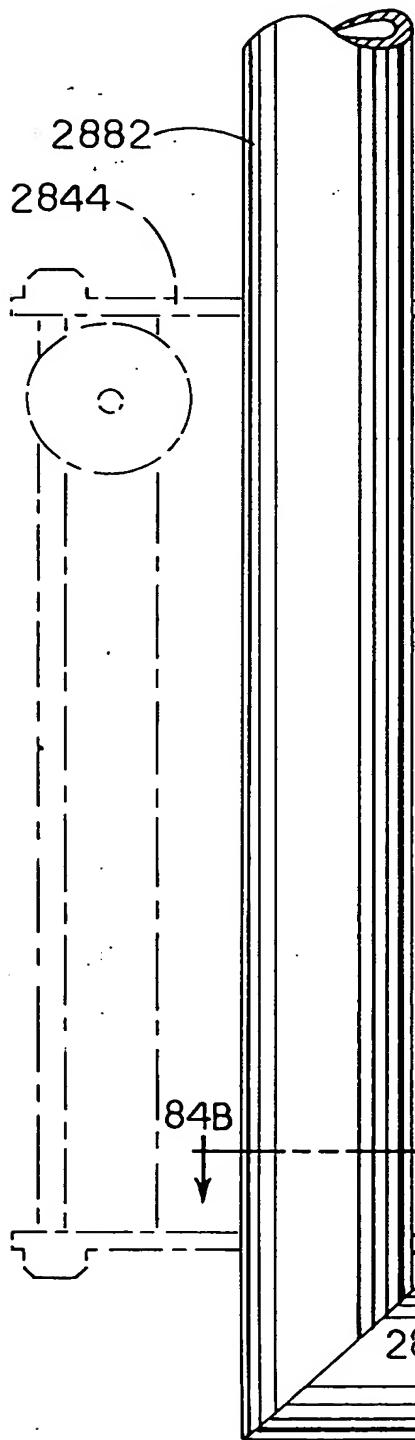


FIG. 84B

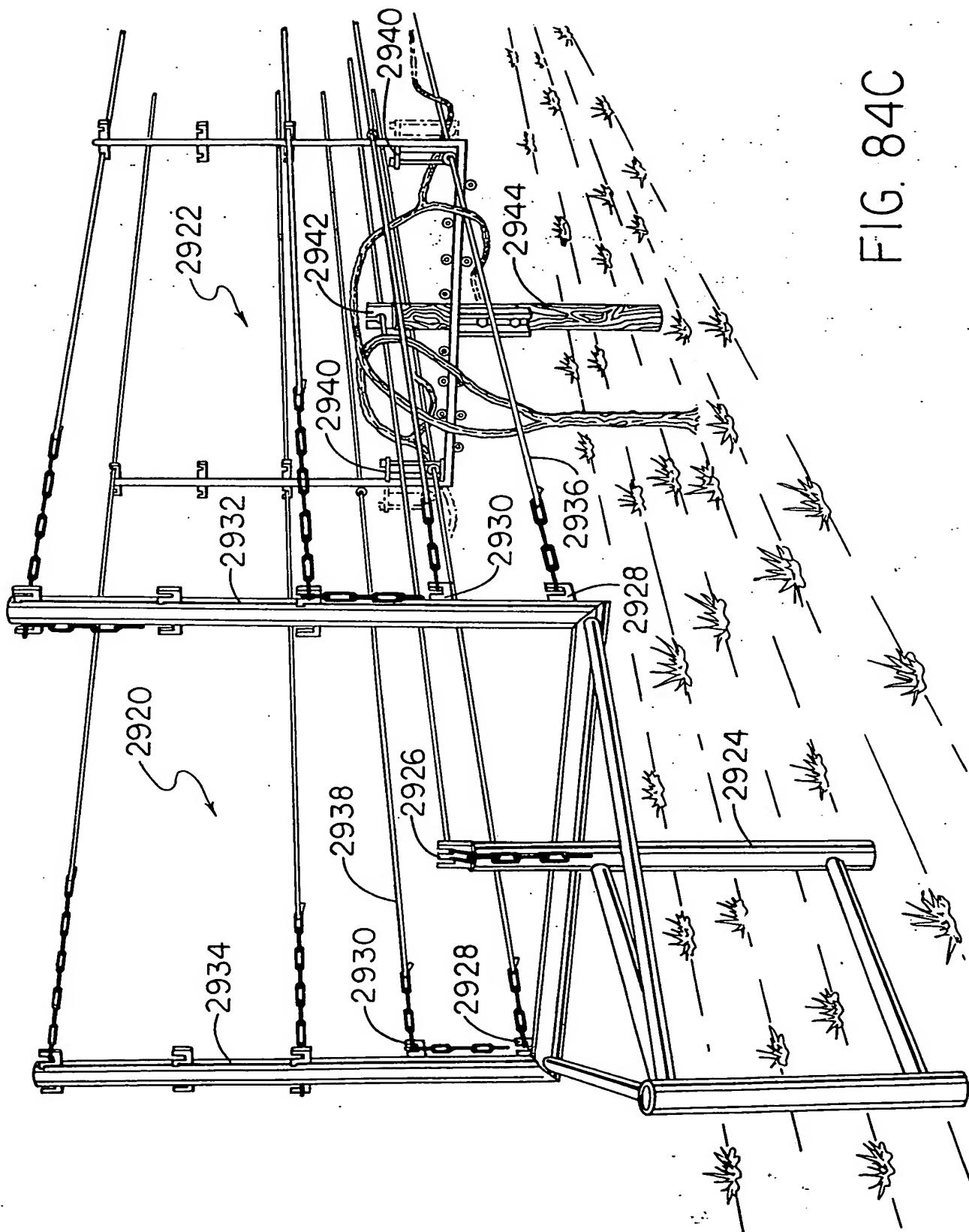


FIG. 84C

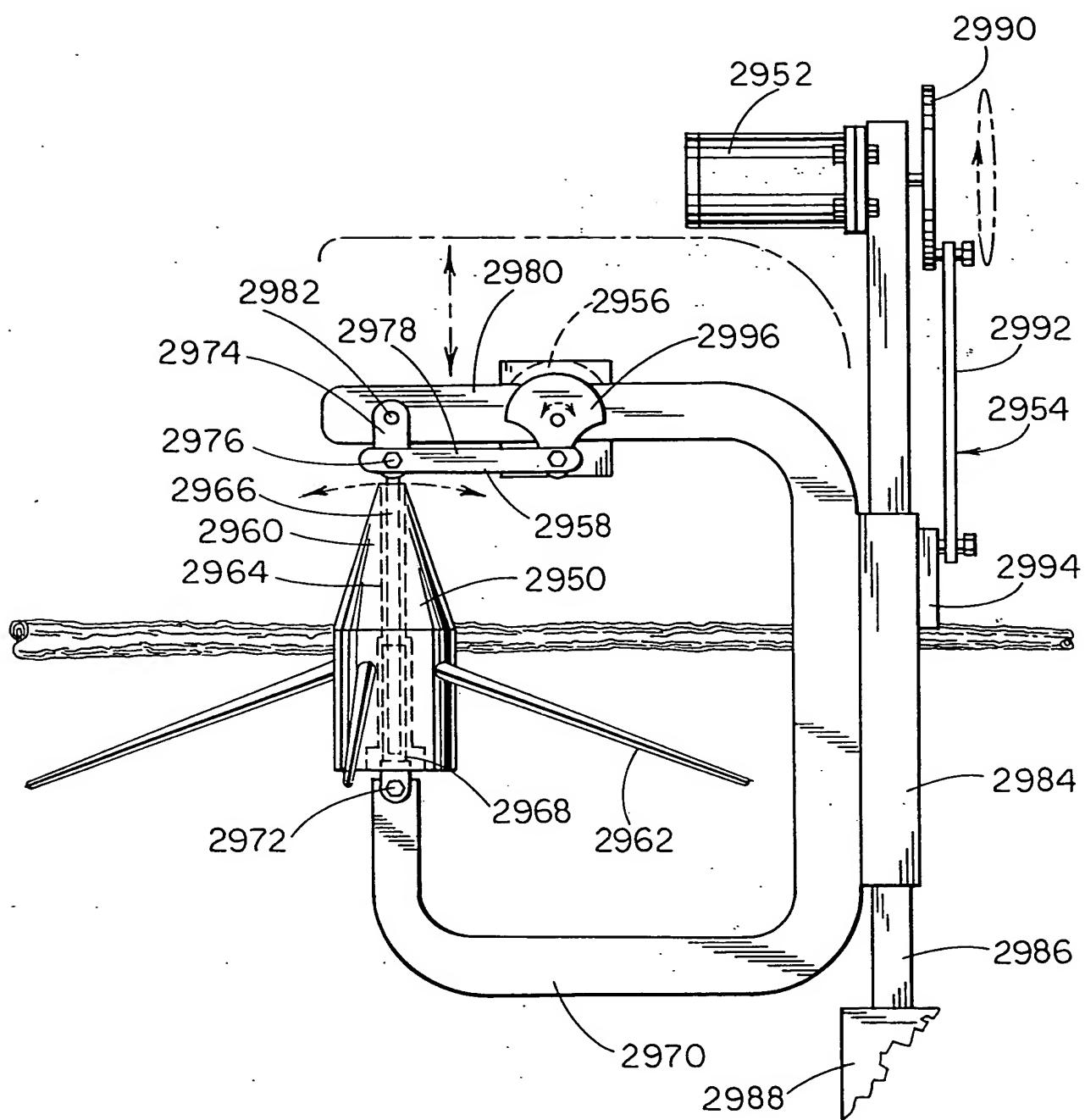


FIG. 84D

202 T 50° F 41 T 60° F 100° F

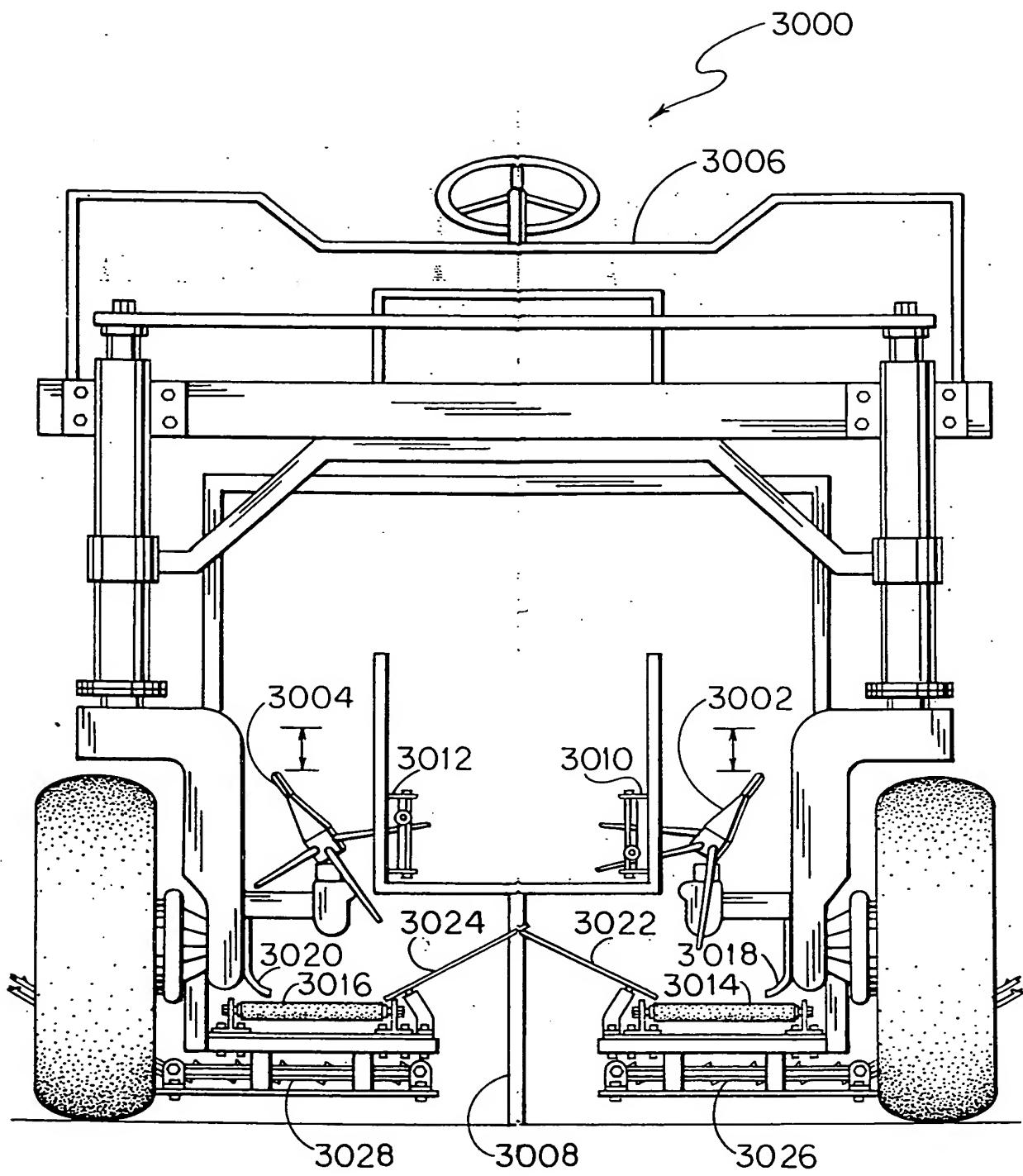


FIG. 85

**I. SEASONAL CHART FOR VINEYARD MECHANIZATION
ACTIVITIES OF VITIS LABRUSCANA (and other grapes with
drooping growth habits) ON SINGLE CURTAIN TRELLIS**

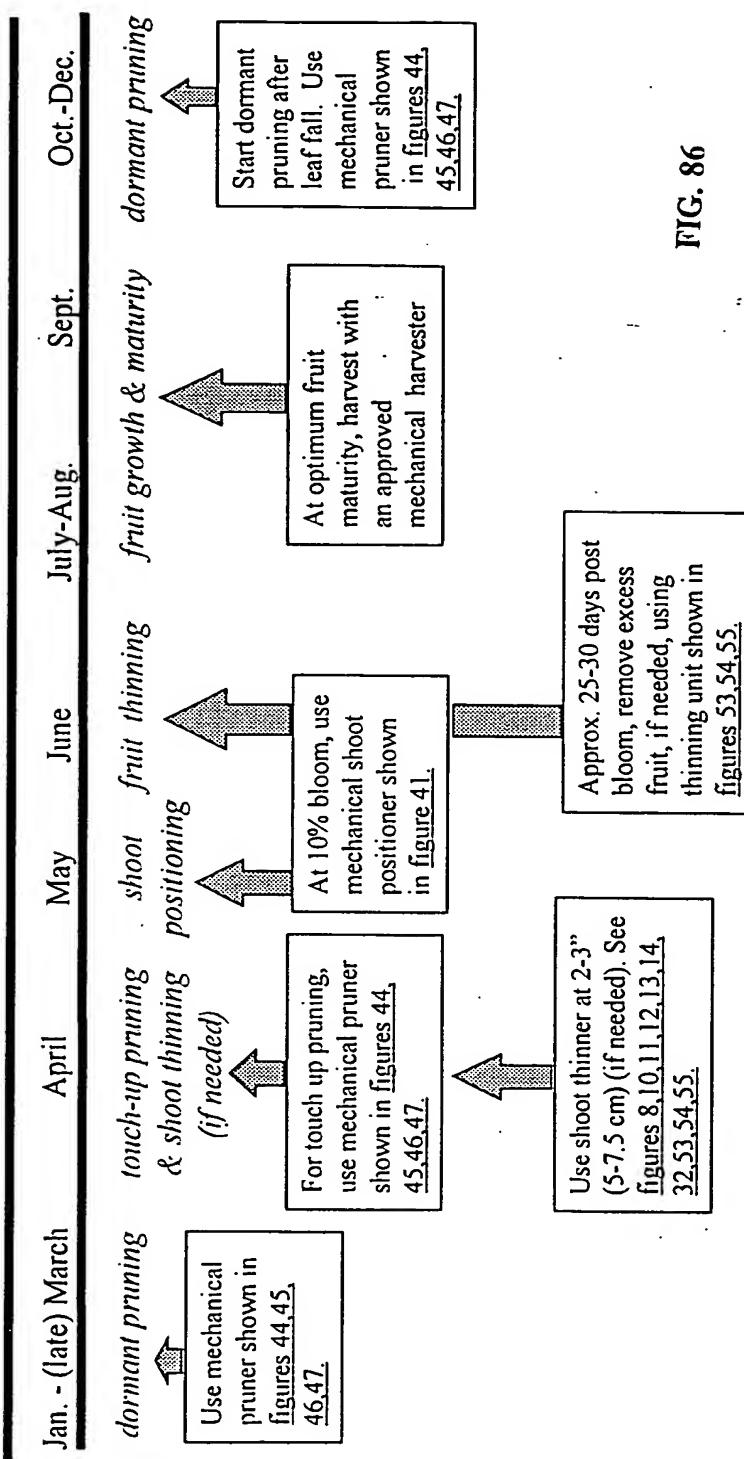


FIG. 86

Exact date of each operation will depend on the viticultural region. The exact date can vary from region to region by as much as 3-4 weeks (depending on the cultivar). Therefore, mechanical operation should be based on physiological growth of the vine. Of course, the seasons in the southern hemisphere are opposite.

II. SEASONAL CHART FOR VINEYARD MECHANIZATION ACTIVITIES OF VITIS LABRUSCANA (and other grapes with drooping growth habits) ON GDC TRELLIS AND GDC-LIKE CANOPY SYSTEMS

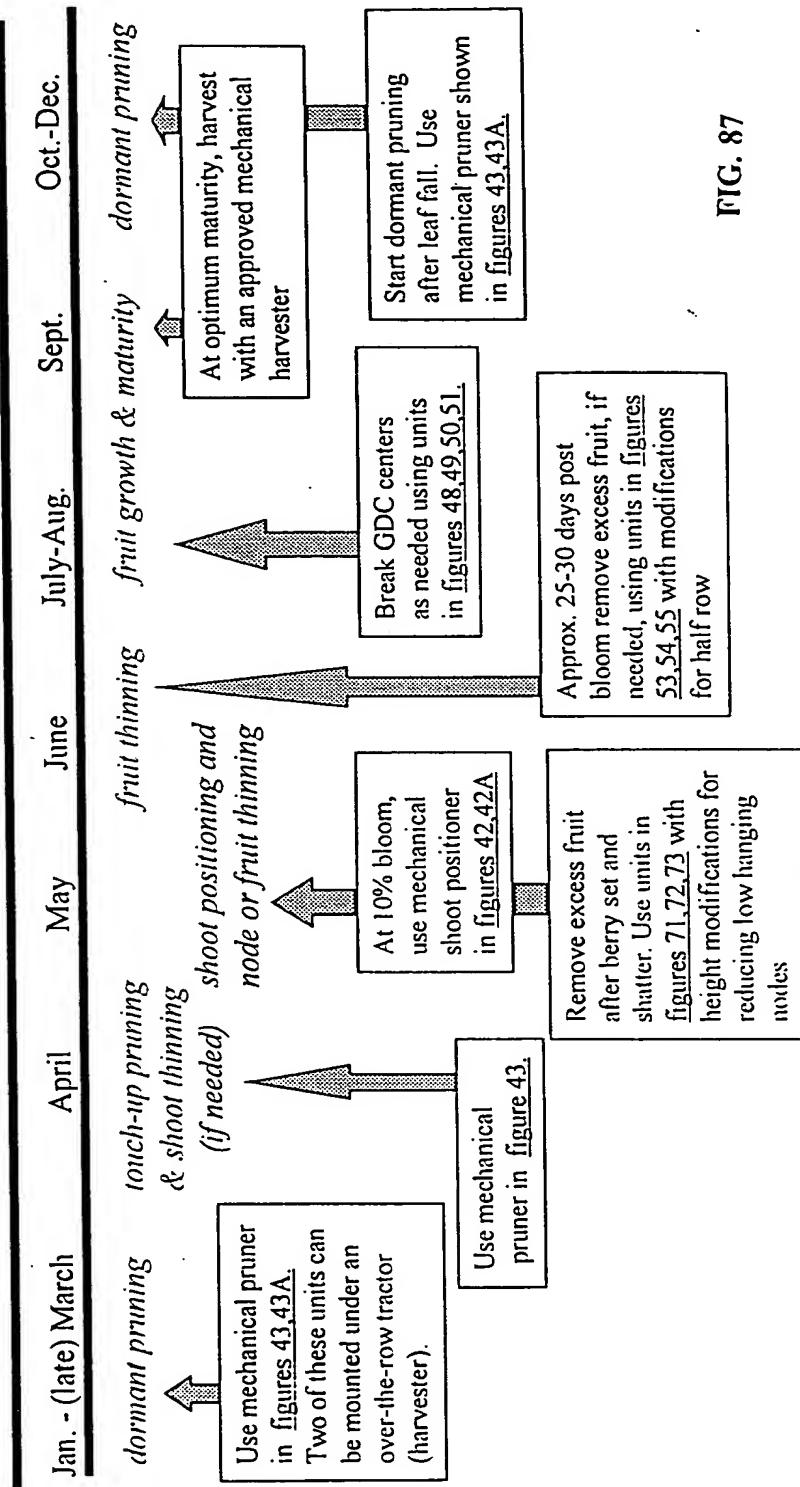


FIG. 87

Exact date of each operation will depend on the viticultural region. The exact date can vary from region to region by as much as 3-4 weeks (depending on the cultivar). Therefore, mechanical operation should be based on physiological growth of the vine. Of course, the seasons in the southern hemisphere are opposite.

**III. SEASONAL CHART FOR VINEYARD MECHANIZATION ACTIVITIES
ON MINIMAL PRUNED VITIS LABRUSCANA (and other grapes with
drooping growth habits) ON SINGLE CURTAIN TRELLIS SYSTEMS**

Jan. - (late) March	April	May	June	July-Aug.	Sept.	Oct.-Dec.

shoot thinning

Eliminate all new shoots, 2 to 3" (5-7.5 cm), for 4" (10 cm) on canes and the cordons that are located on the top of the canopy. This can be accomplished with modifications of the unit shown in figure 50.

Use shoot thinner (if needed) to eliminate some of the excessive buds when shoots are 2-3" (5-7.5cm) with unit shown in figures 53,54,55.

fruit thinning

Approx. 25-30 days post bloom, remove excess fruit, if needed, using thinning unit shown in figures 53,54,55.

Trim all shoots to approximately 15" (38 cm) above the vineyard floor. Figures 71,72.

fruit growth & maturity

At optimum fruit maturity, harvest with an approved mechanical harvester.

On vigorous vineyards, open the top center portion of the single curtain canopy approximately 12 inches (30 cm) with a modified unit shown in figure 50.

FIG. 88

Exact date of each operation will depend on the viticultural region. The exact date can vary from region to region by as much as 3-4 weeks (depending on the cultivar). Therefore, mechanical operation should be based on physiological growth of the vine. Of course, the seasons in the southern hemisphere are opposite.

IV. SEASONAL CHART FOR VINEYARD MECHANIZATION ACTIVITIES
ON MINIMAL PRUNED VITIS LABRUSCANA (and other
grapes with drooping growth habits) ON GDC TRELLIS SYSTEMS

Jan. - (late) March	April	May	June	July	Aug.	Sept.	Oct.-Dec.
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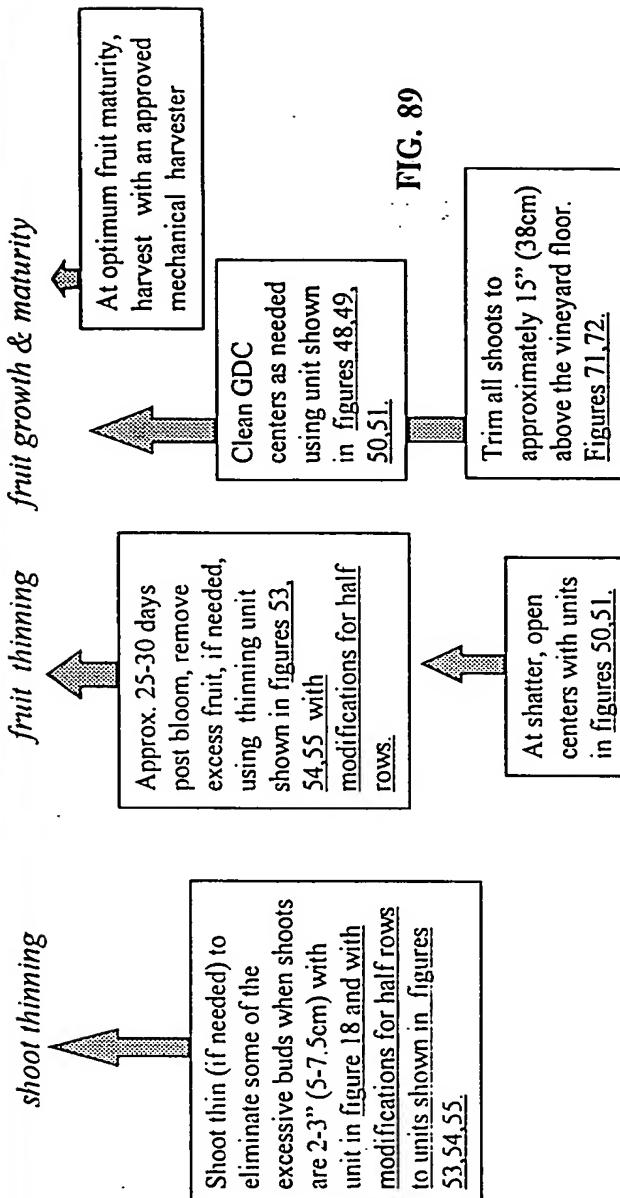


FIG. 89

Exact date of each operation will depend on the viticultural region. The exact date can vary from region to region by as much as 3-4 weeks (depending on the cultivar). Therefore, mechanical operation should be based on physiological growth of the vine. Of course, the seasons in the southern hemisphere are opposite.

**V. SEASONAL CHART FOR VINEYARD MECHANIZATION
ACTIVITIES OF VITIS VINIFERA AND FRENCH AMERICAN HYBRIDS
PRODUCED ON HIGH WIRE SINGLE CURTAIN TRELLISES**

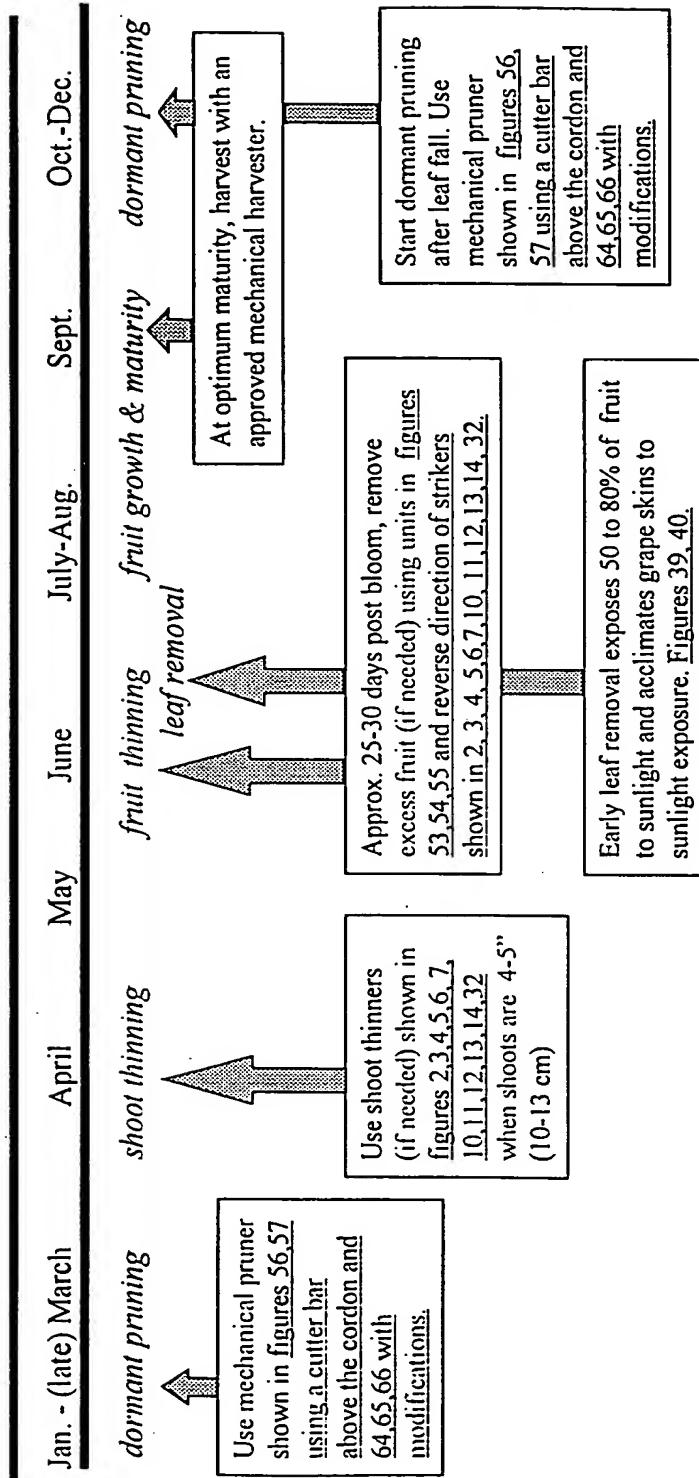


FIG. 90

Exact date of each operation will depend on the viticultural region. The exact date can vary from region to region by as much as 3-4 weeks (depending on the cultivar). Therefore, mechanical operation should be based on physiological growth of the vine. Of course, the seasons in the southern hemisphere are opposite.

**VI. SEASONAL CHART FOR VINEYARD MECHANIZATION ACTIVITIES
OF VITIS VINIFERA AND FRENCH AMERICAN HYBRIDS PRODUCED
ON GDC AND OTHER DIVIDED CANOPY TRELLISES**

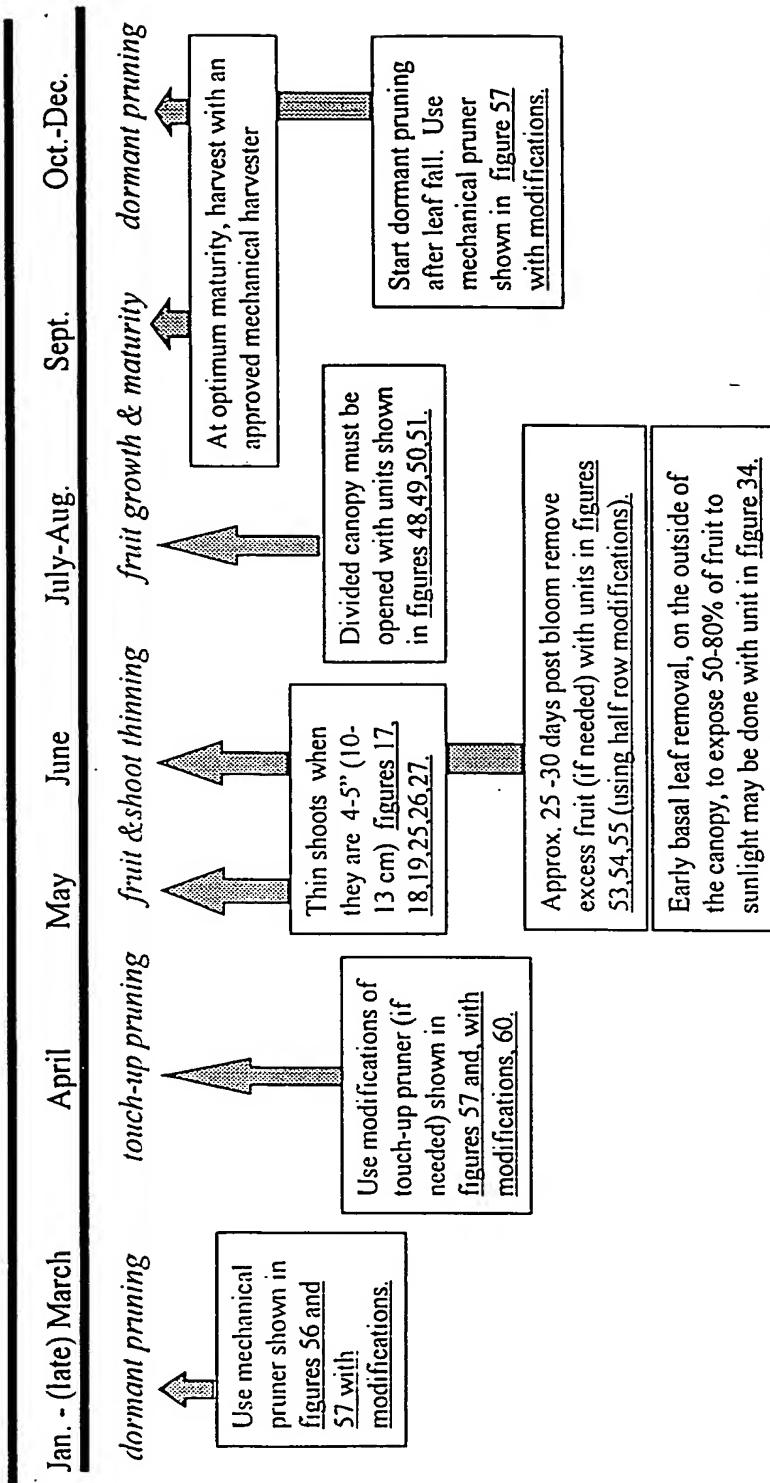


FIG. 91

Exact date of each operation will depend on the viticultural region. The exact date can vary from region to region by as much as 3-4 weeks (depending on the cultivar). Therefore, mechanical operation should be based on physiological growth of the vine. Of course, the seasons in the southern hemisphere are opposite.

VII. SEASONAL CHART FOR VINEYARD MECHANIZATION ACTIVITIES IN
 MINIMAL PRUNED VITIS VINIFERA AND FRENCH AMERICAN HYBRIDS
 TRAINED TO A HIGH WIRE SINGLE CURTAIN TRELLISING SYSTEM.

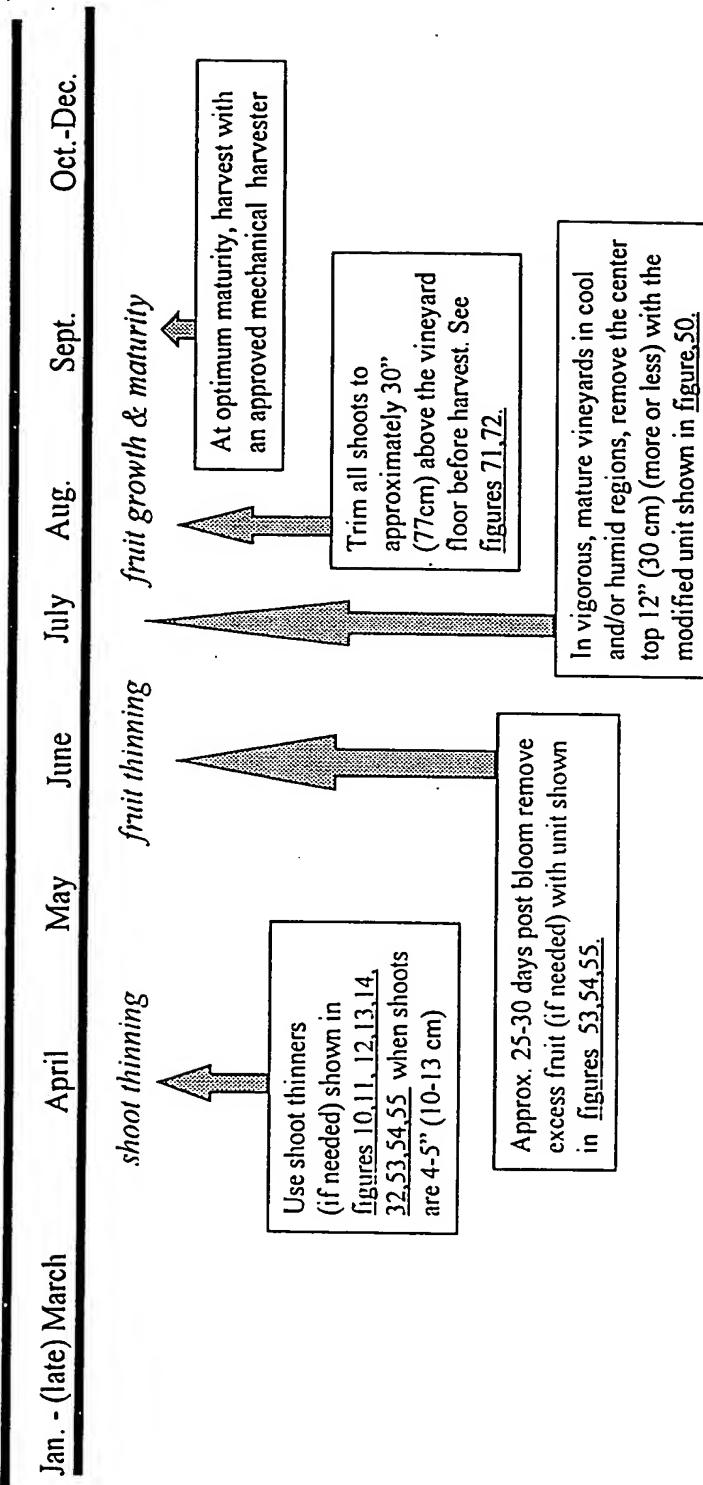


FIG. 92

Exact date of each operation will depend on the viticultural region. The exact date can vary from region to region by as much as 3-4 weeks (depending on the cultivar). Therefore, mechanical operation should be based on physiological growth of the vine. Of course, the seasons in the southern hemisphere are opposite.

**VIII. SEASONAL CHART FOR VINEYARD MECHANIZATION
ACTIVITIES ON MINIMAL PRUNED VITIS VINIFERA AND
FRENCH AMERICAN HYBRIDS ON GDC TRELLIS SYSTEMS**

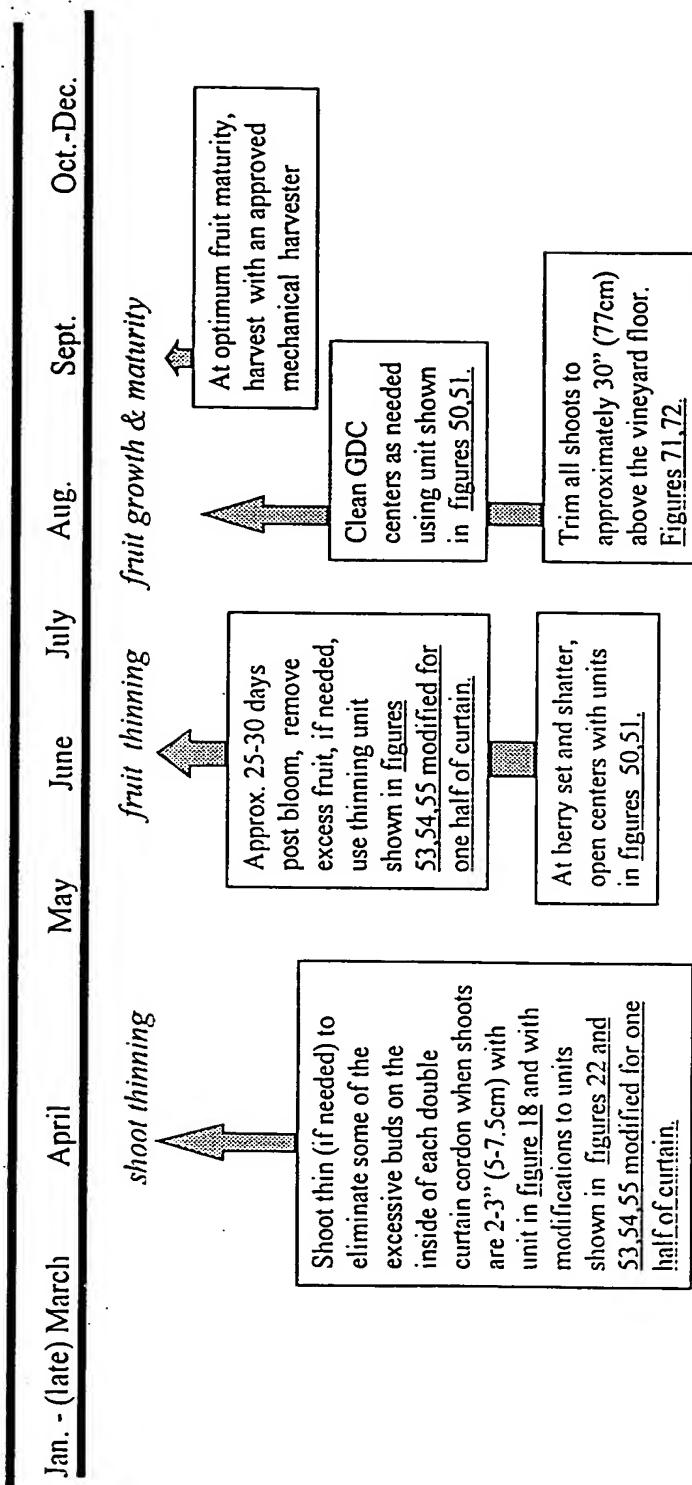


FIG. 93

Exact date of each operation will depend on the viticultural region. The exact date can vary from region to region by as much as 3-4 weeks (depending on the cultivar). Therefore, mechanical operation should be based on physiological growth of the vine. Of course, the seasons in the southern hemisphere are opposite.

**IX. SEASONAL CHART FOR VINEYARD MECHANIZATION
ACTIVITIES OF VITIS VINIFERA AND FRENCH AMERICAN
HYBRIDS PRODUCED ON STANDARD CALIFORNIA T-TRELLIS**

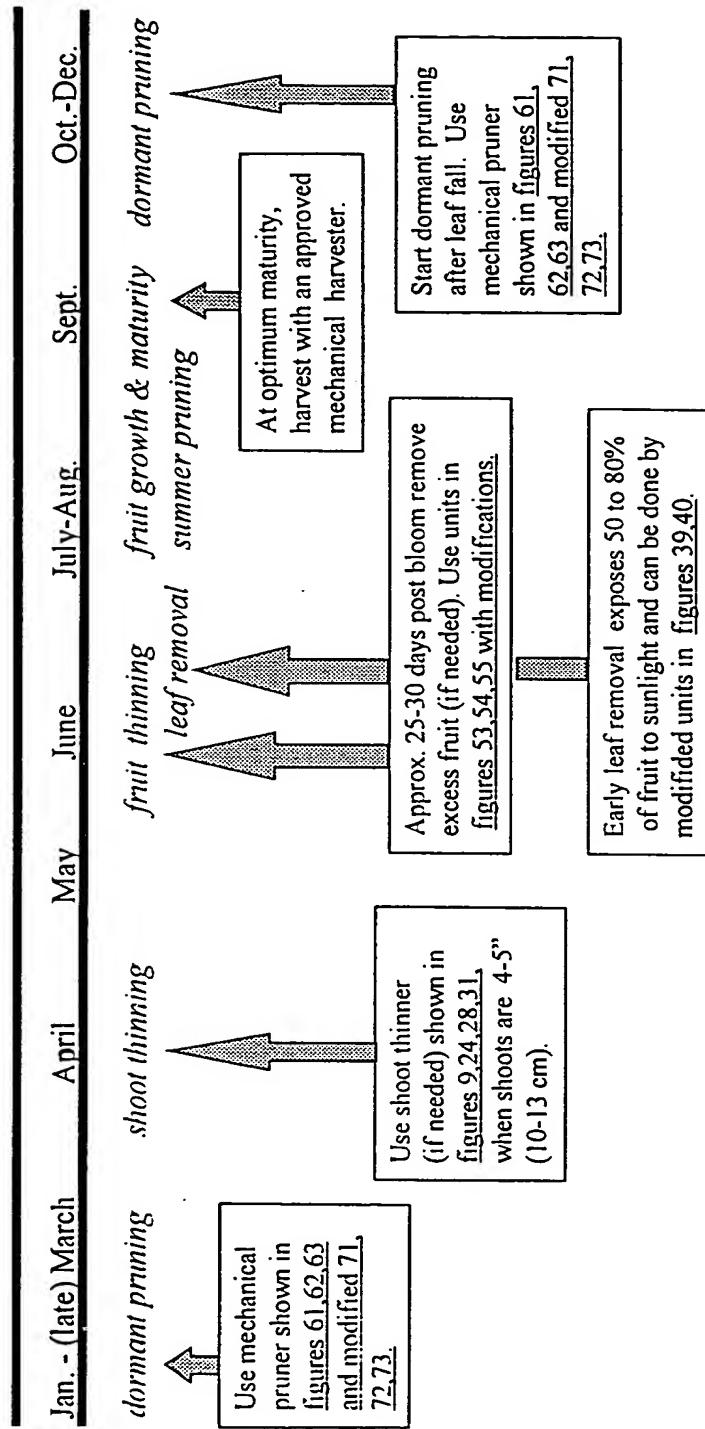


FIG. 94

Exact date of each operation will depend on the viticultural region. The exact date can vary from region to region by as much as 3-4 weeks (depending on the cultivar). Therefore, mechanical operation should be based on physiological growth of the vine. Of course, the seasons in the southern hemisphere are opposite.

**X. SEASONAL CHART FOR VINEYARD MECHANIZATION ACTIVITIES
OF VITIS VINIFERA AND FRENCH AMERICAN HYBRIDS
PRODUCED ON STANDARD VERTICAL MOVEABLE CATCH WIRES**

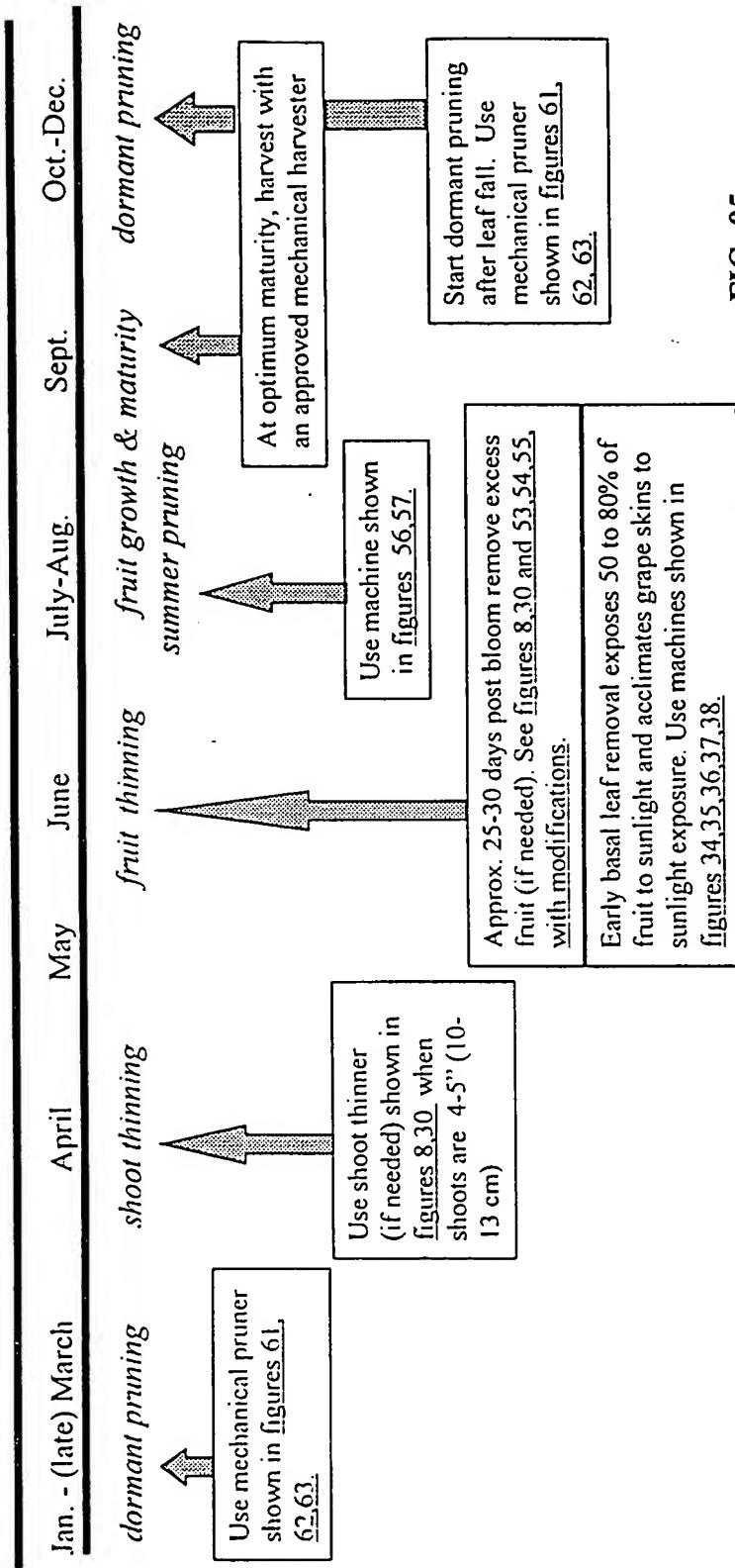


FIG. 95

Exact date of each operation will depend on the viticultural region. The exact date can vary from region to region by as much as 3-4 weeks (depending on the cultivar). Therefore, mechanical operation should be based on physiological growth of the vine. Of course, the seasons in the southern hemisphere are opposite.

**XI. SEASONAL CHART FOR VINEYARD MECHANIZATION ACTIVITIES OF
VITIS VINIFERA AND FRENCH AMERICAN HYBRIDS PRODUCED ON
LYRE OR "U" AND OTHER DIVIDED CANOPY TRELLISES**

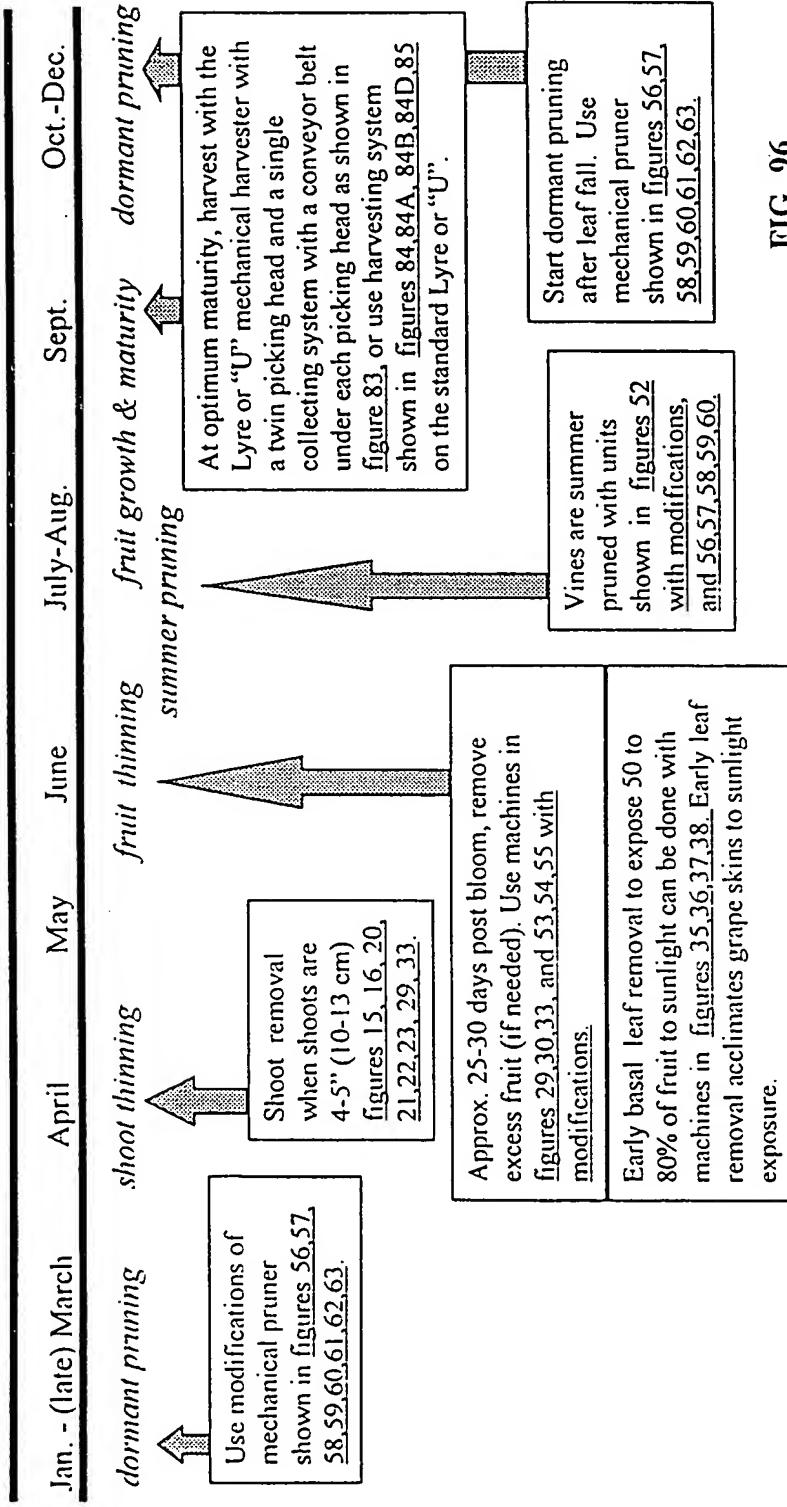


FIG. 96

Exact date of each operation will depend on the viticultural region. The exact date can vary from region to region by as much as 3-4 weeks (depending on the cultivar). Therefore, mechanical operation should be based on physiological growth of the vine. Of course, the seasons in the southern hemisphere are opposite.

**XII. SEASONAL CHART FOR VINEYARD MECHANIZATION ACTIVITIES
OF VITIS VINIFERA AND FRENCH AMERICAN HYBRIDS ON
SMART-DYSON BALLERINA (and similar) TRELLISING SYSTEMS.**

